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ABSTRACT

This compendium is designed to present the relationship of the rehabilitation process to vocational education; to examine the cooperative roles of vocational education, rehabilitation, and special education; and to identify the trends that will have an impact on the planning for future training needs. Included in the volume are the following papers: "Rehabilitation Applications in Vocational Education: Goals, Historical Context, and Components of the Model," by Pamela Finnerty-Fried; "Application of Vocational Evaluation and Assessment in Vocational Education," by Robert N. Ianacone; "Applications of Individualized Planning in Vocational Education," by George Tilson, Jr.; "Application of Employment Readiness Training in Vocational Education," by Carol A. Kochhar; "Application of Vocational Guidance and Counseling in Vocational Education," by William F. Sullivan; "Application of Job Placement and Follow-up in Vocational Education," by William F. Sullivan; "The Expansion of Services for Disabled Persons within Vocational Education," by Pamela J. Leconte; and "Future Trends and Implications for Vocational Education and Rehabilitation," by Pamela J. Leconte and Pamela Finnerty-Fried. (MN)

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VOCATIONAL REHABILITATION IN EMPLOYMENT TRAINING

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FOREWORD

Vocational Rehabilitation in Employment Training is a compendium of eight papers designed to (1) present the relationship of the rehabilitation process to vocational education; (2) examine the cooperative roles of vocational education, rehabilitation, and special education; and (3) identify the trends that will have an impact on the planning for future employment training needs. The compendium contains useful information for planning vocational education programs for disabled persons as well as for other target groups—displaced workers, adult basic education students, and disadvantaged youth. In addition to its usefulness as a program planning tool, the monograph will serve to provide impetus to vocational education, vocational rehabilitation, and special education administrators in the development of cooperative arrangements.

The paper is one of nine papers produced by the National Center Clearinghouse's Information Analysis Program in 1984. It is hoped that the analysis of information on topics of interest to the field of vocational education will contribute to improved programming. Papers in the series should be of interest to all vocational and adult educators, including federal and state agency personnel, teacher educators, researchers, administrators, teachers, and support staff.

The profession is indebted to Dr. Pamela Finnerty-Fried and Dr. Robert N. Ianacone for their scholarship in preparing this paper. Dr. Finnerty-Fried is an Assistant Professor in the Rehabilitation Counselor Education Program and the Director of the Attitudes Research Project in the Rehabilitative Research and Training Center at The George Washington University. Dr. Ianacone coordinates the Vocational/Special Education Program at The George Washington University. Appreciation is also extended to George Tilson, Jr., Carol A. Kochhar, William F. Sullivan, and Pamela J. Leconte for their contributions to the paper.

Dr. Reed Greenwood, University of Arkansas; Dr. Donald Harrison, University of Michigan; Dr. Brockman Schumaker, Southern Illinois University; Dr Randall Shaw, Wayne State College; and Dr. Hal Starr and Nancy Puleo of the National Center for Research in Vocational Education contributed to the development of the paper through their reviews of the manuscript. Staff on the project included Dr. Wesley Budke, Dr. Judith Samuelson, and Catherine Thompson. Ruth Nunley typed the manuscript and Janet Ray served as word processor operator. Editorial assistance was provided by Constance Faddis and Rod Spain of the Field Services staff.

Robert E. Taylor
Executive Director
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EXECUTIVE SUMMARY

This compendium presents the core areas of the rehabilitation process—assessment, counseling, planning, training, and placement—to show how the process is and may be implemented to serve individuals with disabilities in vocational education settings. The overview of key legislation and the components of the rehabilitation process—the model that undergirds the state and federal rehabilitation system—provided in the introductory section, paves the way for the five application sections that follow. Each of these sections examines current and potential applications of a different process component as follows:

- Vocational evaluation and assessment
- Individualized planning
- Employment readiness training
- Vocational guidance and counseling
- Job placement and follow-up

Ianacone identifies the following persons who play a significant role in the vocational evaluation and assessment process: vocational evaluators, rehabilitation counselors, vocational educators, individuals who are disabled, special educators, and significant others. Relevant information for counseling and placement can be obtained through medical-information testing, academic testing, interest testing, dexterity testing, vocational aptitude testing, personality testing, work samples, and situational assessments.

Tilson describes and outlines the four phases in developing individualized vocational education plans: (1) determining the present functioning level, (2) writing annual goals, (3) writing short term objectives, and (4) evaluating student performance.

Kochhar explains the four sequential phases involved in the employment readiness process: (1) readiness for vocational training, (2) work adjustment, (3) vocational skill training, and (4) job seeking/keeping skills.

Sullivan points out that the vocational guidance and counseling process assumes a cohesive role in integrating the various components that are essential for the overall vocational development and vocational success of disabled individuals. These components or phases are: prevocational, preassessment, assessment, exploration, selection, placement, and follow-up.

Job development and placement of disabled individuals works best through a team approach. The practitioners in the three disciplines of vocational education, special education, and rehabilitation have unique experiences and expertise, which can effectively be used to assist disabled individuals. The significant elements of the planning and placement strategy involve the following phases: job development, job modification, job analysis, job placement, and job follow-up.

Because the components of the rehabilitation process are interrelated, key issues in one component may also be of importance to another component. For example, successful job placement can be achieved only if the job selection is made on the basis of a comprehensive knowledge of the individual's vocational strengths and limitations, abilities, and personality. Thus, job placement is tied closely to assessment. For the same reason, an in-depth discussion of applications for one area may refer to others as well.

Vocational educators, special educators, school counselors, career education teachers, and employment and training program service providers will find much useful information in the application sections for designing programs for disabled individuals. The same process can be applied also in developing assessment, counseling, employability skills training, and placement programs for other target groups. Administrators, counselors, and teachers may wish to consider programs targeted at displaced workers, adult basic education students, or disadvantaged population.

Cooperative arrangements among vocational education, vocational rehabilitation, and special education are also a central theme of this compilation. A commonality of goals across the three disciplines, as well as the team approach to the delivery of services, foster the ideal climate for expanded interdisciplinary cooperation. The section titled "The Expansion of Services for Disabled Persons within Vocational Education" focuses on means for strengthening the linkages. Administrators in all three disciplines—vocational education, vocational rehabilitation, and special education—will benefit from the information presented herein in order to develop an understanding of the rehabilitation process and to provide a common language for the discussion of cooperative efforts.

The last section of this compilation discusses implications for vocational education of such future trends as robotics, electronic cottage industries, and emerging occupations. These trends will affect patterns of service delivery, program priorities, and cooperative relationships with other fields of education and other agencies.

INTRODUCTION

This monograph is designed to present the rehabilitation model and its components to vocational educators. Its purpose is threefold: (1) to describe rehabilitation, its history, and its technology; (2) to illustrate how rehabilitation is or can be implemented to serve individuals with disabilities in vocational education settings; and (3) to demonstrate how certain components of the model have applications for a broad spectrum of disabled and nondisabled students in vocational education.

A discussion of rehabilitation technology within vocational education necessitates inclusion of the discipline of special education. Since the emphasis of this monograph is on rehabilitation and the components of the rehabilitation model, special education as a distinct discipline is not described at length. The authors have worked as a team in a unique cross-discipline cooperative relationship to clarify the components of the rehabilitation process, its interface with special education, and its applications within vocation education.

As a guide to the reader, a chart of the rehabilitation process is presented (see figure 1). The chart presents a skeletal framework for the rehabilitation process. The reader is encouraged to refer back to this chart as various components are described.

All stages of the rehabilitation process are interrelated and the phases build upon one another. For example, counseling occurs at all phases of rehabilitation and serves to coordinate the process. Job placement is closely tied to assessment, for a successful placement can be achieved only if the selection of the job site is made on the basis of a comprehensive knowledge of an individual's vocational strengths and limitations, abilities, and personality. These and other features of the rehabilitation model will be discussed in greater detail in the body of the monograph.

The services included in the rehabilitation model, as described in this monograph, are limited to the core areas of assessment, counseling, planning, training, and placement. Those individuals who have had contact with the vocational rehabilitation program may have heard of a number of other services, and in order to illustrate the complexity and breadth of this program those services are listed here. A broad array of services for eligible disabled persons is included in the state-federal rehabilitation program:

- Comprehensive evaluation
- Medical, surgical, and hospital care, and related therapy to remove or reduce disability
- Prosthetic and orthotic devices
- Counseling, guidance, referral, and placement services
- Training services

- Services in comprehensive or specialized rehabilitation facilities
- Maintenance and transportation during rehabilitation
- Tools, equipment, and licenses for work on a job or in establishing a small business
- Initial stock, supplies, and management services for small businesses, including acquisition of vending stands by the state agency
- Reader services for blind persons and interpreter services for deaf persons
- Recruitment and training services to provide new careers for disabled individuals in the field of rehabilitation and other service areas
- Construction or establishment of rehabilitation facilities
- Provision of facilities and services which promise to contribute to a group of disabled persons but which do not relate directly to the rehabilitation plan of any one person
- Services to families of disabled persons when the services will contribute to the rehabilitation of the disabled client
- Postemployment services, including follow-up and follow-along to help disabled persons hold a job
- Other goods and services necessary to render a handicapped person employable (U.S. Dept. of HEW 1977, p. 6)

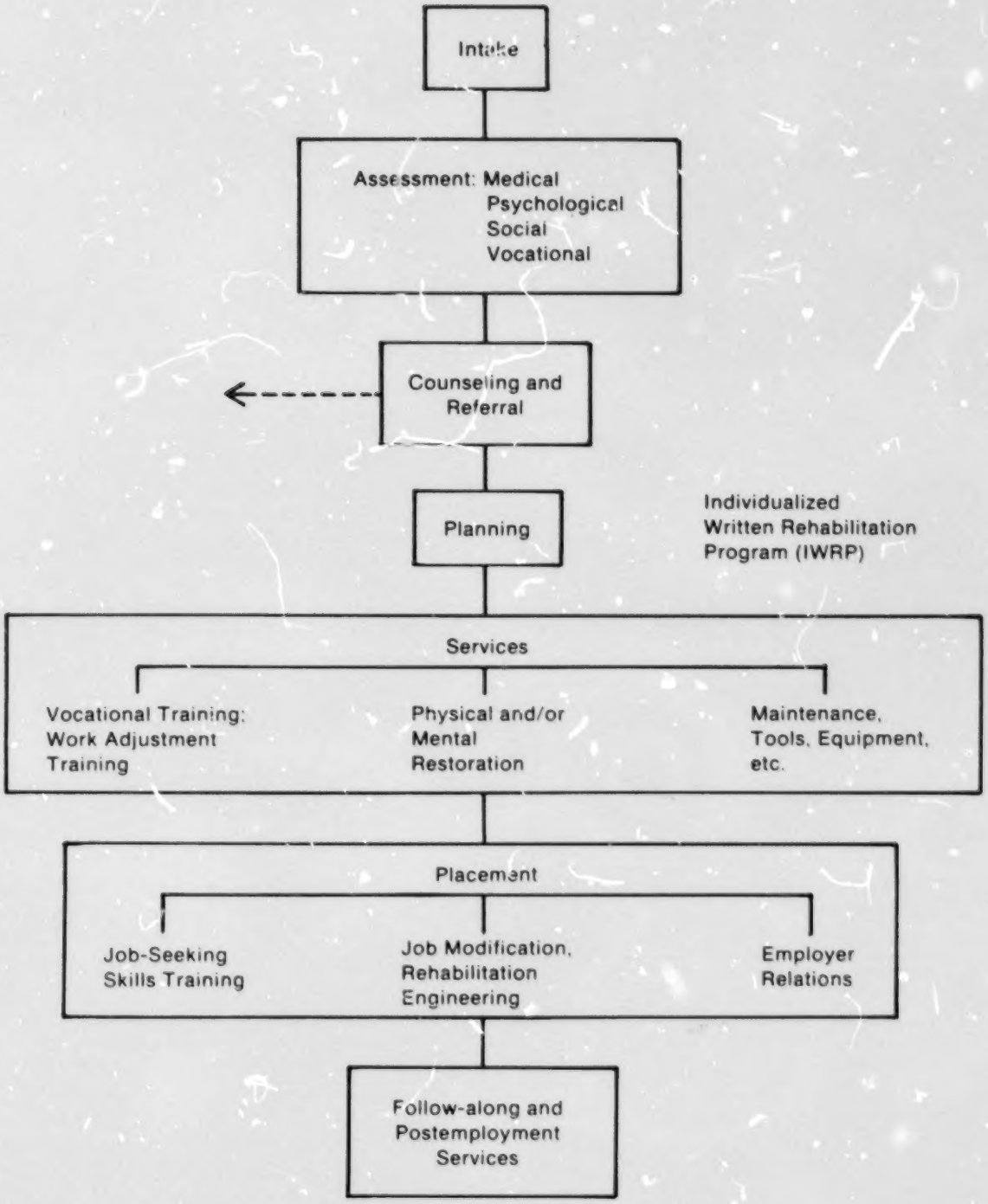

Figure 1. Vocational rehabilitation process

REHABILITATION APPLICATIONS IN VOCATIONAL EDUCATION: GOALS, HISTORICAL CONTEXT, AND COMPONENTS OF THE MODEL

Pamela Finnerty-Fried

Commonality of Goals: Vocational Education, Rehabilitation, and Special Education

Vocational education has been defined by the American Vocational Association (1968) as "education designed to develop skills, abilities, understandings, attitudes, work habits, and appreciation needed by workers to enter and make progress in employment on a useful and productive basis" (p. 12). Vocational education provides one vehicle to fulfill the mission of rehabilitation, which is implied in the following classic definition:

> The restoration of handicapped persons to the fullest physical, mental, social, vocational, and economic usefulness of which they are capable. (International Labor Office 1973, p. 1)

Both definitions stress the importance of productivity and usefulness. The provision of vocational education to persons with disabilities requires cooperation and combination of vocational education, special education, and rehabilitation resources (Jenkins and Odle 1980). The interagency cooperation among these three disciplines has been described as "the single most significant factor for service delivery to handicapped persons in vocational education" (Parents Campaign for Handicapped Children and Youth 1978, p. 9). The programs share the common goal of maximizing the productivity of citizens through appropriate education and services. For purposes of demonstrating the potential usefulness of the rehabilitation model within vocational education, the similarities rather than the distinctions between programs will be central to the discussion.

Rehabilitation philosophy, concepts, technology, and practices potentially can be of benefit for persons with disabilities in vocational education settings. The two programs share common history and goals, and the linkage between them is a logical and sound one. A monograph on applications of rehabilitation within vocational education would not be complete without inclusion of the interrelationship of special education with rehabilitation and vocational education.

Perhaps most important in this application of concepts from one area to another is the notion of a team approach. Rehabilitation professionals and special educators have much to offer vocational educators who are engaged in providing beneficial educational experiences to persons with or without disabilities. It is the opinion of the authors of this monograph that the same evaluative techniques, vocational support services, and individualized approaches to programming and placement are applicable and extremely valuable to nondisabled as well as disabled individuals.

Vocational education, rehabilitation, and special education have been developed to meet needs, and each has been modified to conform to the conception of what is needed. The rehabilitation model has many applications within vocational education. Special education has incorpo-

rated much of the philosophy and technology it shares with rehabilitation in both academic and vocational settings. For purposes of this monograph, the "artificial dichotomy" between rehabilitation and special education is bridged in order to describe how concepts and techniques used in both disciplines can be applied within vocational education for nondisabled as well as disabled individuals. An overview of the history of rehabilitation will serve to provide the context within which this application may be understood.

Historic Overview of Rehabilitation: Legislative Landmarks

This historic overview of key rehabilitation legislation and pertinent education and vocational education legislation is limited in depth and scope. Highlights and trends are briefly identified. Detailed descriptions of program components, administrative changes, and contextual historical events are not included.

1917: Vocational Education Act

The rehabilitation program shares a common history with vocational education. Bitter (1979), in describing the history of the vocational rehabilitation program, refers to the Smith-Hughes Act of 1917 (P.L. 64-347) as an important precursor to the actual rehabilitation legislation that was passed in 1918 and 1920. Switzer (1969) points out that this legislation created precedents in regulation and funding for subsequent legislation concerned with job training and upgrading of other groups. The Smith-Hughes Act established a Federal Board for Vocational Education, and this board was charged with the responsibility for the implementation of the first rehabilitation program. Public Law 64-347 was to (1) provide for the promotion of vocational education; (2) provide for cooperation with the states in the promotion of such education in agriculture, the trades, and industries; (3) provide for cooperation with the states in the preparation of teachers of vocational subjects; and (4) appropriate money and regulate its expenditure.

1918: Soldiers Rehabilitation Act

In 1918, Congress enacted the Smith-Sears Act (P.L. 65-178), known as the Soldiers Rehabilitation Act. The purpose of this act was to provide vocational rehabilitation to disabled veterans discharged from the armed forces to enable them to return to civil employment (Bies 1980). The Federal Board for Vocational Education was authorized to set up vocational rehabilitation programs. Thus, the initial rehabilitation effort was limited to veterans, and the sole rehabilitation service offered was that of vocational education.

1920: Smith-Fess Act

Success with the rehabilitation programs for veterans stimulated passage of the Smith-Fess Act of 1920 (P.L. 66-236), the Civilian Rehabilitation Act. The federal government's intent was to encourage the states to provide for disabled citizens through providing grant funds to those state agencies that carried out approved programs. State boards of vocational education were the implementing agencies, and the Vocational Rehabilitation Act was placed under the administration of the Federal Board for Vocational Education. Thus, the initial concept of vocational rehabilitation was that of vocational training for persons with physical handicaps (Jenkins 1981). This concept was to broaden over the years as subsequent legislation authorized additional rehabilitation services that have become the hallmark of the rehabilitation program.

1935: Social Security Act

The joint state-federal rehabilitation program was in danger of being discontinued, as the original act had to be approved every few years and new appropriations had to be enacted. Permanent federal support for vocational rehabilitation was accomplished by inclusion of a title in the Social Security Act of 1935 (P.L. 74-271) (Wright 1980).

1943: Barden-Lafollette Act

A series of organizational and administrative changes occurred as the rehabilitation program was moved within the federal government, but there was no profound change in the program until the 1943 Vocational Rehabilitation Act Amendments, known as the Barden-Lafollette Act (P.L. 78-113). For more than twenty years the program had been "limited in scope of services, restricted in clientele, and uncertainly and inadequately financed" (Wright 1980, p. 139).

The major features of the 1943 legislation were that the clientele was broadened to include mentally retarded and emotionally disturbed persons, services were expanded to include physical restoration, and limitations on the maximum amount authorized by Congress were removed (Wright 1980). This legislation was important for its broadening of the scope of rehabilitation and for changes in concepts within the profession (Jenkins 1981).

1954: Hill-Burton Act

The 1954 amendments, known as the Hill-Burton Act (P.L. 83-365), provided the basis for major expansion and growth. The most significant changes included (1) greater support to states with larger populations; (2) extension and improvement of state programs through provision of project grants; (3) funding of research for new knowledge and demonstration projects for improved methods; (4) training grants for the preparation of rehabilitation professionals; and (5) funding for establishment or expansion of rehabilitation facilities (Wright 1980). Each of these types of support did require some matching funds, ensuring the commitment and involvement of the state programs.

1965: Vocational Rehabilitation Act Amendments

The 1965 Vocational Rehabilitation Act Amendments (P.L. 89-333) are seen as the most important rehabilitation legislation in the twenty-year period from 1954 to 1973 (Wright 1980). Programs were expanded, experimental and innovative projects were authorized, and funds were provided to assist in the planning, equipping, and staffing of facilities. Workshop improvement programs were included, and there was a greater emphasis on research and information (Wright 1980). The act provided for the operation of sheltered workshops and authorized evaluation and work adjustment services for all "disadvantaged" persons, even those who would not be agency clients after the evaluations (Jenkins 1981). Thus, services were broadened and expanded, continuing the trend of addressing the needs of broader groups with more comprehensive services.

1973: Rehabilitation Act

In 1973, rehabilitation legislation became the test case in a power struggle between Congress and the president. The new Vocational Rehabilitation Act (P.L. 93-112) Amendments were vetoed

twice before finally being passed in October of 1973 (Jenkins 1981). This landmark piece of legislation, often termed the Civil Rights Act for the Handicapped, has had far-reaching effects on the lives of persons with disabilities and on the national commitment to serve them. This legislation emphasized the provision of rehabilitation services to severely disabled persons, that is, those persons with disabilities that seriously limited "functional capacities (mobility, communication, self-care, or work skills) in terms of employability" (Whitten 1974, p. 39). Thus, more severely disabled persons were served in the joint state-federal programs by being trained for employment and then becoming employed.

Sections 502, 503, and 504 of this act also contributed to the increased emphasis on accessibility of educational and work settings for persons with disabilities and for those with severe disabilities. Jenkins (1981) asserts that "many people with handicaps have been unable to obtain employment, not because of lack of skills, but because architectural barriers and transportation difficulties have made it impossible for them to reach places of employment" (p. 23). Section 502 provided that public facilities should be accessible to persons with disabilities. The removal of such barriers represented an environmental approach to rehabilitation.

Section 503 also was a move toward reducing barriers, in this case those imposed by job discrimination. This affirmative action legislation mandated that employers with federal contracts should take action to employ qualified applicants under certain conditions (Williams 1976). This mandate was limited in application and had no specific enforcement procedures, so that "compliance with this provision continues to depend upon effective education of employers about the competency of handicapped people in industry" (Jenkins 1981, p. 24).

Section 504 was described as "a first step toward an expanded effort to establish civil rights for handicapped people" (Jenkins 1981). This section prohibits discrimination on the basis of physical and mental handicaps in all programs and activities receiving federal assistance. Section 504, in combination with Public Law 94-142 and the Vocational Education Act of 1965 as amended by the Education Act of 1976 (P.L. 94-482), has had a far-reaching impact on the provision of vocational education to persons with disabilities.

1978: Comprehensive Rehabilitation Services Amendments

The 1973 Rehabilitation Act and the 1974 amendments sought to reduce barriers to employment. They occurred, in part, as a result of the emphasis on modifying variables external to the person with the disability rather than modifying the person. This broadening of the scope of rehabilitation was followed by a real departure from the vocational emphasis of the program, with the Rehabilitation Services Amendments of 1978 (P.L. 95-602). This legislation authorized the comprehensive Independent Living Services Program, which is designed to broaden the scope of rehabilitation to include persons with disabilities so severe as to render them unlikely candidates for employment.

In addition, the 1978 amendments provide for (1) state advocacy systems; (2) establishment of the National Council on the Handicapped and the National Institute of Handicapped Research; (3) expansion of enforcement authority for Sections 502, 503, and 504 of the 1973 amendment; (4) programs of government-industry cooperation to increase employment opportunities; and (5) expansion of services to the developmentally disabled (Jenkins and Odle 1980).

This brief overview of the rehabilitation program's development has provided the context within which to understand the rehabilitation model and its application in vocational education. The combined impact of three key pieces of legislation has launched programs to serve students with disabilities in vocational education settings.

Vocational Education for Persons with Disabilities: Key Legislation

Bies (1980) states that "the vocational education profession has traditionally been receptive to providing services to students with special needs" (p. 39). The Vocational Education Act of 1963 (P.L. 88-210) stated that persons with academic, socioeconomic, or other handicaps were to be served. However, special funds were not earmarked and provision of services was random. The 1968 amendments (P.L. 90-576) identified two special needs categories of individuals, the disadvantaged and the handicapped, who were to receive 15 and 10 percent, respectively, of all vocational education funding. The "disadvantaged" were students with social, economic, or cultural disadvantages that prevented them from succeeding in normal school environments. The handicapped were defined as students "unable to learn successfully because they were mentally impaired; emotionally disturbed; orthopedically hand capped; visually handicapped; had hearing, speech, or other health impairments; or were multihandicapped" (Bies 1980, p. 39). These amendments emphasized the importance of providing wider vocational training options for disabled adults (Jenkins and Odle 1980).

The Educational Amendments of 1972 (P.L. 92-318) provided funding and grants to those higher education and secondary programs that offered occupational education programs to the handicapped (Bies 1980). This strengthened the provision of vocational education to students with disabilities in postsecondary settings.

Passage of the Education for All Handicapped Children Act (P.L. 94-142) in 1975 was "an important step toward achievement of vocational goals for handicapped students" (Jenkins and Odle 1980). The act's definition of special education included vocational education. There is a close relationship between this act and parts of Section 504 of the Rehabilitation Act of 1973 that are specific to elementary and secondary education. Among these are that a free, appropriate education be provided to all handicapped persons, and that handicapped children be educated with nonhandicapped children (Jenkins 1981).

As has been mentioned, Section 504 contains much of relevance to the provision of postsecondary vocational education. Subpart E specifies that no handicapped student shall be discriminated against on the basis of handicap in any academic or occupational training or extracurricular program or activity (Halloran, Foley, Razeghi, and Hull 1978). Required are auxiliary aids and services needed to meet the disabled students' needs as adequately as those of nondisabled students.

The Vocational Education Act Amendments of 1976 (P.L. 94-482) mandated that vocational programs in secondary schools comply with the requirements of Public Law 94-142. This increased responsibility for vocational education to make training options fully available to disabled students. It is the thesis of this monograph that many of the mandated services, which include a number of rehabilitation services, can be valuable for all students in vocational education settings. These services include (1) an appropriate educational program, (2) appropriate and nondiscriminatory evaluation, and (3) an individualized educational plan developed with the involvement of parents (Bies 1980). These services parallel the components of the rehabilitation model and, as will be demonstrated through this monograph, contain elements that have broad applicability within vocational education.

Before describing the rehabilitation model, it is important to clarify further a distinction in definition found in the legislation. Halloran and associates (1978) emphasize that "existing handicapping conditions" (p. 80) do not automatically make a person eligible for special services, but the condition must adversely affect the student's chance for success in the educational program. Use of terminology is not uniform within or among disciplines. The terms "handicap" and "disabil-

ity" may be used interchangeably, despite efforts to define and clarify them. The important concept to note is that obstacles or barriers to success that can be removed or overcome through intervention and accommodation cannot be a justification for excluding citizens from programs, occupations, and life areas to which they are as equally entitled as any other citizen. This conceptual framework is the underpinning of the application of vocational rehabilitation to vocational education. Careful and comprehensive assessment and planning, appropriate programs and services, ongoing vocational guidance and counseling, and effective job development and placement can be useful for a broad range of students.

Components of the Rehabilitation Model

Assisting persons with disabilities to enter or reenter the world of work requires active interventions "both in assisting clients to develop their employability and in modifying the world of work so that it can accommodate a wider range of variation in human function" (Daniels 1981, p. 186). Rehabilitation services are designed to remove systematically barriers to employability imposed by disabilities. During assessment, strengths and limitations are identified, then plans for maximizing the individual's potential are made. Rehabilitation services are provided in order to "remove the discrepancy between current client functional level and the levels necessary for goal achievement" (Daniels 1981, p. 191).

A number of services traditionally are considered. Medicine is the first phase of rehabilitation and includes "curing or ameliorating the patient's acute illness or injury . . . and . . . restoration to reduce the functional limitations of the disablement" (Wright 1980, p. 309). The goals of rehabilitation are as follows:

1. Treat the disability by physical or mental restoration, such as medical treatment, surgery, or psychotherapy.

2. Reduce or eliminate the limitations caused by the disability by providing adaptive services, such as mechanical aids and enhanced physical function.

3. Circumvent or compensate for any handicap(s) caused by the functional limitation through rehabilitation services, such as counseling, adjustment training, selective job placement, attendant care. (Wright 1980, p. 310)

Thus, the medical phase of rehabilitation focuses on the treatment of the medically defined disease or disorder. In the second phase, the limitations in functioning imposed by the disability are addressed. In the third phase, the handicap, or ultimate effect or barriers involved in the limitations imposed by the disability, is the focus. It is this third phase, the reduction of barriers to employability, that this monograph emphasizes.

The technology developed and researched in rehabilitation and special education has particular relevance for vocational education, and includes (1) vocational evaluation and assessment, (2) individualized planning, (3) employment readiness training, (4) vocational guidance and counseling, and (5) job placement and follow-up. Each of these areas has been developed and is utilized to increase the likelihood of clients' reaching their vocational potentials within whatever limits may be imposed by their disabilities or life circumstances.

Rehabilitation is "a facilitative process enabling a person with a handicap to attain usefulness and satisfaction in life" (Wright 1980, p. 3). As with vocational education, which is designed to

"provide both productive and self-satisfying job settings through which institutions and individuals can realize their goals" (Calhoun and Finch 1982, p. 1), attention is paid both to individuals and to the environments within which they live and plan to work. Both programs emphasize individual needs and labor market information.

Rehabilitation is an integrated process with interrelated components that are not discrete or separate. For purposes of clarity, the components will be described separately in the logical sequence that characterizes the rehabilitation process.

Comprehensive Assessment and Evaluation

The purpose of assessment in rehabilitation is to gather as much information as is needed about the individual to deal effectively with the person's problem. The type of problem dictates the focus of the client assessment. The role of assessment in rehabilitation is threefold: (1) prediction, (2) determination of individual strengths and weaknesses for vocational planning, and (3) information to be used in the enhancement of vocational adjustment (Galazan 1961). Assessment entails collecting, examining, and using data to help individuals plan and make decisions. Information gathered can be used in choosing an appropriate objective and in planning strategies for reaching it. Thus, assessment is linked to planning, to guidance and counseling, to training, and to job placement.

For purposes of this monograph, the emphasis is placed on the vocational component of the comprehensive assessment process. The major approaches and technology used in comprehensive vocational evaluation include psychometrics, work samples, and situational approaches. Participants in the vocational assessment process and the roles of each also will be described.

Development of Formal Rehabilitation Plan

The rehabilitation plan is a valuable tool that may be adapted for use within vocational education settings. Within rehabilitation, an individualized written rehabilitation program (IWRP) is developed at the completion of a thorough diagnostic study. Ideally, a comprehensive program is developed that includes "the vocational goal, services required to achieve that goal, the terms and conditions under which these services will be provided, a schedule for assessing progress toward achieving the goal or intermediate objectives, and the disabled individual's views concerning the goal and services being provided" (Andrew 1981, p. 211). Services are planned to overcome the handicap and reduce the individual's marginality in the employment market through provision of special skills. Plans are made to prepare the individual to meet the technical requirements of the job, to carry out the job-seeking and placement process, and to develop behaviors on the job that will contribute to job retention (Andrew 1981).

The IWRP synthesizes labor market information and reflects solid knowledge of the individual's strengths, skills, and interests, as well as of the employment world within which he or she plans to work. The plan also affords the opportunity to coordinate resources and represents a single document to which all involved parties may refer.

Rehabilitation Services for Employment Readiness

Rehabilitation services described in this section include personal-social adjustment and work adjustment services, and job-seeking skills training. Training and education for vocational goals

are essential tools for disabled and nondisabled community members, and the techniques and approaches described under employment readiness training have wide applicability within vocational education. Employment readiness training is linked with the assessment and placement processes and with information about the world of work.

Career Counseling and Vocational Guidance

Underpinning all phases of the rehabilitation process is the provision of guidance and counseling. This component is often termed the "core" of rehabilitation and is the thread that unites assessment, planning, service provision, and job placement. Counseling entails helping clients to make decisions, formulate goals, and implement plans. Within the vocational rehabilitation counseling process is an emphasis on fostering the individual's career development. This important component potentially has direct relevance for vocational education.

Ongoing counseling and guidance is an important component of any rehabilitation process. Counseling provides continuity and links the interrelated components of the rehabilitation process integrating assessment, planning, services, and placement.

Since the creation of the public rehabilitation program, counseling and guidance have been fundamental services, as have training and placement (Wright 1980). Vocational counseling is a specialized form of counseling often employed by rehabilitation counselors. The goal of vocational guidance and career counseling is to assist the individual in making the best possible life/work adjustment (Zunker 1981).

Vocational counseling is a means of integrating evaluation findings and guiding vocational exploration. Students are aided in making decisions and establishing vocational goals. Information from formal evaluations, classroom instruction, job tryouts, work samples, and other sources can be examined within the supportive framework of an ongoing counseling relationship.

Job Placement and Follow-up

Attention is given throughout the rehabilitation process to the world of work. Plans must be based on realistic appraisals of the local job market and on knowledge of anticipated employment trends. These and the other aspects of the placement process are described.

This key component of vocational rehabilitation clearly can be critical within vocational education. Placement refers to "the professional activities involved in assisting handicapped individuals to seek and obtain employment" (Wright 1980, p. 613).

Successful placement is the culmination of the rehabilitation process, but planning for this phase begins in the earlier stages. Accurate information about the client and the world of work is required, necessitating an accurate assessment of the client and a careful analysis of labor market information. Appropriate planning and service delivery are needed to ensure that the individual will have the skills and work behaviors necessary to obtaining and maintaining employment.

As has been described, the rehabilitation model has potential value within vocational education as a means of working with adults requiring vocational training for career advancement or change. The unique features of this model are comprehensive evaluation, coordinated guidance and planning, job preparedness training, and the placement and follow-through process. Each of these components are described in the sections that follow, and potential applications within vocational education are outlined.

APPLICATION OF VOCATIONAL EVALUATION AND ASSESSMENT IN VOCATIONAL EDUCATION

Robert N. Ianacone

The purpose of this section is to discuss the vocational evaluation component of the rehabilitation model and its implications for the provision of more appropriate vocational education for individuals who are disabled. In addressing this topic, emphasis will be placed on the advantages of vocational evaluation for all students involved in vocational skill training (Maryland State Department of Education 1980).

The most commonly cited definition of evaluation (Bitter 1979; Ianacone and Hiltenbrand 1981; Pruitt 1977) was developed at the Tenth Institute of Rehabilitative Services (1972). It read as follows:

> Vocational (work) evaluation is a comprehensive process that systematically utilizes work, real or simulated, as a focal point for assessment and vocational exploration, the purpose of which is to assist individuals in vocational development. Vocational (work) evaluation incorporates medical, psychological, social, vocational, educational, cultural and economic data to assist in the attainment of the goals of the evaluation process. (p. 2)

Since "rehabilitative services are designed to restore (and focus) a person's productive capacity or his [sic] ability to manage his own affairs in part or entirely as he had previous to his incapacity" (Conley 1974, p. 71), vocational evaluation plays a critical part in helping the individual who is disabled to understand better and apply individual interest and aptitudes to the world of work.

What Is the Intent of the Vocational Evaluation/Assessment Process?

The intent of vocational evaluation/assessment is "to provide an assessment of individuals who are vocationally handicapped or those individuals who may be vocationally handicapped at the time they enter the employment market" (Pruitt 1977, p. 3). One of the first variables to be considered is the impact that a specific disability will have on the person's vocational and social functioning. This determination becomes more difficult daily, since our expanding technology and increased opportunities for the disabled have made more employment and training options accessible for individuals who are disabled. In addition, vocational evaluators need to be intimately aware of labor market demands, vocational skill training options, and adaptive measures in order to make appropriate recommendations.

These recommendations are based on an analysis of the individual's vocational potentials and limitations, learning style, and acquisition of functional life skills and vocationally related academics. In order to make appropriate recommendations, this information is viewed in context with

other determinants of potential for employment, such as aptitudes, interests, personality, temperament, work tolerance, training receptivity, social skills, work habits, values, motivation, needs, physical capacity, work adjustment, and placement potential (Pruitt 1977).

"Since the goal of vocational rehabilitation is to assist the disabled individual to achieve his/her highest level of vocational potential, then the goal of vocational evaluation/assessment is to accurately determine that potential" (ibid., p. 4). In order to ascertain vocational potential, individuals need to explore varying careers and occupations while identifying and formulating personal/vocational preferences and interests. Concurrently, vocational evaluators assist in developing vocational decision-making skills, identify aptitude/skills that can be developed, and define potentials and limits that skills impose on careers and job acquisition. The evaluators then integrate the evaluation/assessment data for a personalized approach to career planning.

In analyzing the basic intent of the vocational evaluation/assessment process, it is evident that the potential for success in a vocational skill-training or employment setting can be determined better when placement decisions are based on relevant, quantifiable data:

> Comprehensive vocational assessment must become part of the vocational education service delivery system for handicapped students. More than 80 percent of Texas educators who were recently surveyed stated that comprehensive vocational assessment is crucial in developing an appropriate education program for secondary handicapped students. (Occupational Curriculum Lab 1982, p. 1).

This same "need" is applicable to all persons developing an appropriate vocational/employment plan for disabled individuals served by vocational rehabilitation.

Who Are the Participants in the Vocational Evaluation/Assessment Process and What Are Their Roles?

A number of persons affect the vocational evaluation/assessment process. They are discussed next.

Vocational Evaluators

Vocational evaluators are the central figures in pulling together assessment information and making recommendations. In some rehabilitation settings, vocational evaluators simply evaluate and interpret test results as specific placement-employment/skill-training options are identified and recommended by the vocational rehabilitation counselors.

Rehabilitation Counselor

Rehabilitation counselors are the coordinators of all rehabilitative services and make the decision as to whether or not a vocational evaluation is needed. The counselors and the clients jointly process the evaluation findings and incorporate them into an appropriate rehabilitation plan.

Vocational Educators

> Vocational educators should serve as consultant specialists in supplying the assessment process with input on the community and the nature of labor market needs. They can further assist in planning, selecting, and developing work samples and statistical assessment rates, in an effort to guarantee a positive match between events within the assessment center and the world of work. Vocational educators can present a realistic and accurate picture of skill requirements for specific vocational training areas. (Ianacone and Hiltenbrand 1981, pp. 58-59)

More specifically, vocational educators in both secondary and postsecondary settings provide information concerning entry-level requirements, course content and structure, exit-level competencies, physical and instructional adaptive measures available, and labor market demands.

Individuals Who Are Disabled

Disabled individuals play an integral role in the vocational evaluation process. Vocational evaluation should not be something that happens to or for the individuals, but something that happens with the individuals who are disabled. The emphasis is on self-discovery, personal assessment, interpretation with guidance, and participation in decision making.

Special Educators

These professionals represent a major referral source for school-based disabled individuals in need of vocational evaluation/assessment services. As a result of their placement and program-testing responsibilities, vocational evaluators/assessors can greatly benefit through the sharing of this critical information. Special educators are also critical in developing and sharing employability and functional life skill competencies.

Significant Others

Depending on the age of the individuals being served, public school-based guidance personnel, subject matter teachers, work experience coordinators, cooperative education teachers, and parents/family members all provide essential information and support to the disabled individuals receiving vocational evaluation/assessment services. The employment sector also supplies information concerning employment trends, options, requirements, and support for workers who are disabled.

Access to and effective utilization of data from all informational planning, programming, and placement sources will aid in determining the potential success of disabled individuals in an employment or skill-training areas. The provision of appropriate support services, once those placements are made, is also dependent on the information gathered and recommendations made during the vocational evaluation/assessment process.

How Does This Evaluation Take Place?

Clients are referred by rehabilitation counselors, other service agencies, schools, or by the clients themselves for vocational evaluation services. The evaluation process varies in time,

although the average evaluation period is eight to ten working days. *Students* are referred through guidance counselors, teachers, parents, and other support service personnel for vocational assessment services. The assessment process also varies in time, from three working days to three weeks or longer, depending on the career exploration options available and appropriate for the individual students.

What Options Are Available to Obtain Relevant Information for Counseling and Placement?

Vocational evaluation/assessment is an individualized approach. The degree to which each of the following areas is emphasized is dependent on the needs of the disabled individual coupled with the professional discretion of the evaluators (Sitlington 1979).

Medical-Information Testing

Vision and hearing impairments as well as other handicapping disabilities need to be identified, remediated before the vocational evaluation/assessment process, compensated for during it, and circumvented as a result of it. These handicapping conditions can greatly influence an individual's response on evaluation measures and could, in turn, detrimentally affect aptitude and interest scores. Most of this screening is available through medical reports and, as needed, may require the consultation of other specialists.

Academic Testing

There are varying academic requirements related to an individual's ability to function effectively in a vocational skill-training or employment situation. Vocational evaluators need to gather information concerning the client/student's academic functioning level in order to aid in setting realistic career choices and determining modifications needed, such as job restructuring or providing vocationally related academic support to facilitate functioning. This information also is needed to determine appropriate work samples and other written assessment instrumentation to be used.

Interest Testing

General interest testing attempts to relate daily types of activities and behaviors (e.g., riding a bike) to similar aspects of a job or job cluster. Specific vocational interest testing will give examples of jobs and have clients/students respond to their likes or dislikes related to those kinds of jobs or work. Although most interest tests only look at individuals' preferences for an area, some tests will relate clients/students' preferences, experiences, and self-rated capabilities to performing a specific job or task; for example the Comprehensive Occupational Assessment and Training System (COATS) Job Matching component addresses these three areas. Although both reading and nonreading interest inventories have been developed, many evaluators use interest testing as an opportunity to build rapport with clients/students through administering an informal inventory of interest and experience.

Dexterity Tests

Manual dexterity tests are used to measure eye-hand coordination, finger dexterity, gross motor dexterity, use of small tools, and frustration tolerance in timed situations. These skills or

aptitudes are then related to functioning in an employment or vocational skill-training setting. Due to the lack of current norming data and the difficulty that clients/students have in relating these tasks to work environments, these tests are used sparingly and in combination with other measures in order to be valid indicators of vocational aptitude.

Vocational Aptitude Tests

"Aptitude tests are intended to measure a person's capacity to learn or to develop proficiency in a particular endeavor, assuming appropriate training is provided" (Parker and Hansen 1976, p. 78). Due to the reading and response patterns required, a number of tests in this category (with the possible exception of the General Aptitude Test Battery (GATB) and Nonreading Aptitude Test Battery (NATB) are inappropriate with certain disabilities and are used sparingly. Administration to some clients/students could yield scores more reflective of academic functioning problems than of a lack of vocational aptitude in a specific area.

Personality Testing

Appraisal of personality traits can be obtained through personality inventories or by means of anecdotal records and descriptions of behaviors. Analysis of anecdotal records are often most useful to guidance personnel (Shirley 1976). As Morrow (1976) states:

> Anything which influences self-concept development has an effect on the vocational choice process. Negative and/or unrealistic attitudes towards oneself or occupations, as well as insufficient or unrealistic knowledge of self and occupations, can hinder or prevent the making of appropriate vocational decisions. (p. 4-5)

If used, personality inventories should be administered individually and interpreted only by trained personnel (Shirley 1976).

Work Samples

In the proceedings of the Tenth Institute on Rehabilitative Services (1972), a work sample is defined as "a close simulation of an actual industrial task, business operation, or a component of an occupational area" (p. 19). An effective work sample parallels a specific or general environment in its cognitive and performance requirements, physical demands, decision-making requirements, work aids, tools, and equipment. This environment can be changed to meet the physical and mental needs and limitations of each individual involved (Thomas 1979). Work samples provide a means through which clients/students can experience the realities of an occupational area. "They also enable the individual to make a personal decision about whether he or she possesses the ability, skill, and interest necessary to function in that occupational area" (Nadolsky 1981, p. 36).

Work samples are the most commonly used tools in both vocational evaluation and assessment. "A basic function of work samples in almost any setting is to provide 'hands-on' exposure to the work environment and in career exploration" (Tindall 1980, p. 424). Since clients and evaluators are apt to make more appropriate and relevant decisions when opportunities are present to explore varying employment and training options, the more closely the work sample simulates the employment/training options (or elements of those options) the easier it is for clients to compare their interests and aptitudes to the requirements of the vocational options presented.

Commercial evaluation systems vary in price, validity, reliability, relevance, approximation to the work environment, relationship to local labor market trends, skill training options, and ability or adaptability to serve individuals who are disabled. Due to this variance in commercially available work sample systems, locally developed work samples often are used to meet specific needs. Thousands of work samples have been developed in rehabilitation facilities throughout the country (Pruitt 1977) and, increasingly, work samples are being developed in school systems to reflect training and job site assessment needs. Locally developed work samples can provide clients with opportunities for assessment and exploration of the vocational and employment opportunities available in their own community and, although these require more staff skill and time for development, they are much less expensive than are commercial work samples (Occupational Curriculum Lab 1982).

Situational Assessment

"Situational assessment focuses on the individual's work personality, including such factors as work motivation, work attitudes, and work behaviors" (Department of Rehabilitation and Manpower Services n.d., p. 105). This approach does *not* focus on individuals' physical ability to perform a job or components of a job. In order to assess a person's work personality most effectively, the client is evaluated in an actual job or work situation that exists or is designed by the evaluator. Aside from an actual employment site, a workshop setting may be used in rehabilitation for situational assessment because of its similarity to an industrial environment. A vocational skill-training classroom may be used to determine the appropriateness of a person's work or vocational training personality to the training setting.

Situational assessment is a "systematic procedure for observing, recording, and interpreting work behavior. One of the underlying assumptions of observation is that behavior is determined both by the person and by the situation. Any attempt to isolate one from the other, or neglect the context, results in loss of data and misinterpretation" (Pruitt 1977, p. 167). Also, according to Tindall (1980), "Observing a student in a vocational skill training class or on the job can provide a better idea of the student's vocational capabilities than reliance on work samples alone" (p. 426).

What Are the Implications of This Assessment Relative to Vocational and Special Education?

It is important for vocational educators to be aware of the differences in focus that vocational evaluation and assessment incorporate, as they relate to purpose, structure, and eventual outcomes. This information can aid in facilitating disabled students' transitions into the workplace by addressing the students' readiness for training, availability of support systems, and directionality in emphasizing developmental or exit-level competency.

Implications for Vocational Education

Vocational education can play an important part in the vocational evaluation/assessment process. In essence, vocational educators, because of their skill-training expertise, experience in the job market, and knowledge of labor market demands, can assist in validating the entire evaluation/assessment process. Vocational educators can further assist in the planning, selecting, and developing of work samples and situational assessment sites, in an effort to validate or guarantee a positive match between events within the evaluation/assessment site, vocational skill-training settings, and the world of work (Ianacone and Hiltenbrand 1981).

This cooperation not only benefits the evaluation/assessment site, but is also in the best interest of all vocational educators. The *more valid and realistic* the evaluation/assessment process, the *more qualified* and potentially *more successful* the disabled individuals will be in vocational skill-training or employment options. The closer one gets in the evaluation process to the actual activities performed, tools used, and environments representative of skill-training or employment settings, the more accurate and predictive the vocational evaluation/assessment information will be. For these reasons, the vocational classroom tryout is becoming an essential component of the evaluation/assessment process. Vocational classroom tryouts involve the following:

> . . . placement in an environment to see how an individual functions. These tryouts should occur at the end of a comprehensive vocational assessment, and selection of a tryout situation should be based on previous occupational exploration, interest assessment, and work samples. Tryouts are an intensive method of combined assessment and vocational exploration which provide the final confirmation of recommendations developed as a result of previous vocational assessment. (Occupational Curriculum Lab 1982, p. 58)

Although instructor time is always at a premium, the benefits of more realistic or appropriate placement decisions and better prepared, career goal-oriented clients far outweigh the sacrifice of time to make this process work.

> "The attitude of instructors will often be more positive because they may know in advance how to plan the instruction of a specific handicapped student. Students themselves will be more effectively prepared for entrance into vocational programs because they may confirm an interest in a class, establish rapport with a teacher, and therefore, begin class with a greater degree of confidence. (Occupational Curriculum Lab 1982, p. 58)

Vocational Evaluation/Assessment Instrumentation

The following are lists of evaluation/assessment instruments for various uses. Mention here does not imply endorsement, nor does omission of any instruments imply anything about their value.

I. Achievement Tests

Adult Basic Learning Examination (ABLE)

Peabody Individual Achievement Test (PIAT)

SRA Reading and Arithmetic Indexes (SRA-RAI)

Tests of Adult Basic Education (TABE)

Tests of General Educational Development (GED)

Wide Range Achievement Test (WRAT)

Key Math

Woodcock Reading Test

II. Functional Life Skills Tests

Social and Prevocational Information Skills Battery (SPIB)

Brigance Inventory of Essential Skills—Secondary

Everyday Skills Test (EST)

American Association on Mental Deficiency Adaptive Behavior Scale

Street Survival Skills Questionnaire (SSS)

III. Personality Tests

California Psychological Inventory Test

Gordon Personality Test

Eduards Personality Test

The Sixteen Personality Factor Questionnaire

Minnesota Multiphasic Personality Inventory Test (MMPI)

Eysenck Personality Inventory Test

Wide Range Intelligence and Personality Test (WRIPT)

Money Problem Check List

IV. Interest Tests

American Association on Mental Deficiency Becker Reading Free Vocational Interest Inventory

Wide Range Interset Opinion Test (WRIOT)

Gordon Occupational Checklist

Self Directed Search (SDS)

California Occupational Preference (COP)

Geist Picture Interest Inventory

Kuder Preference Record/General Interest Survey

Holland Trends Inventory

Picture Interest Inventory (California)

Picture Interest Exploration Survey (PIES)

Singer/Graflex Pictorial Interest Screening

Comprehensive Occupational and Assessment Training System—Job Matching (COATS)

V. Vocat onal Aptitude Tests (Written)

San Francisco Vocational Competency Scale

Bennett Mechanical Comprehensive Test (Form S)

Minnesota Clerical

General Clerical Test

Differential Aptitude Tests (DAT)

Flanagan Aptitude Tests (FACT)

General Aptitude Test Battery (GATB)

Nonreading Aptitude Test Battery (NATB)

VI. Vocational Aptitude Tests (Performance)

Bennett Hand Tool Dexterity Test

Purdue Peg Board

Minnesota Spatial Test

Minnesota Rate of Manipulation Test

Pennsylvania Bi-Manual Work Sample Test

Revised Minnesota Paper Form Board

Crawfords Small Parts Dexterity Test

VII. Commercial Evaluation Systems

McCarren-Dial Work Evaluation System

Jewish Employment and Vocational Service Work Sample System (JEVS)

Singer Vocational Evaluation Systems (SINGER)

Talent Assessment Programs (TAP)

The Tower System (TOWER)

Valpar Component Work Sample Series (VALPAR)

Comprehensive Occupational Assessment and Training System (COATS)

Wide Range Employment Sample Test (WREST)

Micro (TOWER)

Vocational Interest and Talent Assessment System (VITAS)

Vocational Information and Evaluation Work Sample (VIEWS)

VIII. Measures of Employability*

Arkansas Facility Outcome Measure

Behavior Checklist

Client Handicap Checklist

Employer Questionnaire of the West Virginia Follow-up Kit

Functional Assessment Inventory

Materials Development Center Behavior Identification Format

Minnesota Satisfactoriness Scales

Preliminary Diagnostic Questionnaire

San Francisco Vocational Competency Scale

Scale of Employability for Handicapped Persons

Service Outcome Measurement Form

Vocational Adjustment Rating Scale for the Retarded

Vocational Behavior Checklist—Experimental Edition

Vocational Diagnosis and Assessment of Residual Employability Process

Work Adjustment Rating Form

Work Report—1966 Revision

*Sections VIII, IX, X, and XI adapted from Harrison, Garnett, and Watson (1981).

IX. Measures of Independent Living Skills

Barthel Index—Granger Adaptation

California Client Gains Scale

Functional Assessment Profile

Functional Capacity Areas

Functional Life Scale

Functional Screening Scale

Functional Status Index

Human Service Scale

Independent Living Behavior Checklist—Experimental Edition

Level of Rehabilitation Scale

Longitudinal Functional Assessment System

PULSES Profile—Granger Adaptation

Rehabilitation Indicators

X. Measures of Client Perceptions

Minnesota Importance Questionnaire

Public Assistance Recipient's Perception Inventory

Self-Concept of the Mentally Retarded Q-Sort

XI. Measures of Client Satisfaction

Consumer's Measurement of Vocational Rehabilitation (Forms B and B-1)

Employee Questionnaire of the West Virginia Follow-up Kit

Minnesota Satisfaction Questionnaire

Patient Satisfaction with Adjustment to Blindness Training Scale

Scale of Client Satisfaction

APPLICATIONS OF INDIVIDUALIZED PLANNING IN VOCATIONAL EDUCATION

by George Tilson, Jr.

The purpose of this section is twofold: (1) to introduce the essential elements of two models used in planning individualized instruction/training for persons with disabilities and (2) to demonstrate the applicability of these models to vocational training plans for all students. Vocational educators work with many students each year who enter specific vocational classes with a variety of experiences and levels of functioning. Vocational educators additionally are aware of the discrepancies in reading levels and math skills among students. Despite the different functioning levels of these students, they are trained within the same vocational classrooms. Some of these individuals learn entry-level skills, whereas others of their classmates are working at accelerated rates, preparing for actual on-the-job experiences.

As the economy and job market move through rapid changes, the need for specific, individualized skill training has become stronger. Each student's unique personal career goals, immediate interests, and aptitudes must be considered if instructors are to provide the best training possible.

Vocational educators have experienced the value of recording the strategies to be used with each student. This recording may be done in collaboration with the students, their parents, and counselors, and the result would be a unique plan of action for each student. The benefits to students are numerous. The students—

- have an opportunity to discuss personal ideas about their occupational futures in relation to the available options;
- become better acquainted with the instructors' personalities, teaching goals, and expectations;
- receive up-to-date information as to their personal strengths and weaknesses in light of course requirements;
- are encouraged to set realistic, challenging goals for themselves;
- are encouraged to strive continually to meet existing objectives and establish new ones; and
- receive feedback as to how they are succeeding in a specific training area or class.

Family members of such students and/or rehabilitation clients would—

- become better acquainted with the vocational program and instructors;

- receive information about the students' career goals in relation to their functional levels and in terms of program demands;
- have opportunities to set realistic expectations for the students' vocational futures;
- have opportunities to provide input into each student's program by asking questions and giving specific suggestions on possible program improvements; and
- have clear documentation of the students' performance in vocational skill-training classes.

Individualized written plans for each student would benefit vocational instructors, who would—

- become better acquainted with students and their broad career goals.
- have an opportunity to formulate specific training objectives in collaboration with the students. This would, in effect, be a way of contracting with the students individually.
- gain access to important information about each student's learning style.
- gain information regarding students' functional academic skills as they relate to the demands of the vocational classes.
- have a method for quick record keeping and for checking students' achievements and/or deficiencies during the course.
- be able to intercept difficulties before they become complex.

In all cases, a written vocational education plan allows students and instructors to work together more closely. It provides a means for both parties to remain accountable for active participation in learning and teaching. Most importantly, both parties are able to pinpoint specific problems and devise ways of solving them jointly.

Legislative Mandates for Individualized Planning

Special educators and rehabilitation professionals are required by federal laws (P.L. 94-142 and P.L. 93-112, respectively) to write individualized plans for their students. Suggested guidelines for writing vocational plans are discussed in the next two sections, which describe the features of an individualized education plan (IEP) and an individualized written rehabilitation program (IWRP).

The Individualized Education Program (IEP)

According to Section 121 Title 45, Public Welfare Act the IEP must include the following:

- A statement of the child's present levels of educational performance
- A statement of annual goals, including short-term instructional objectives

- A statement of the specific special education and related services to be provided to the child, and the extent to which the child will be able to participate in regular educational programs
- The projected dates for initiation of services and the anticipated duration of the services
- Appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether the short-term instructional objectives are being achieved (Schubert, Glick, and Bauer 1979, p. 71)

The Individualized Written Rehabilitation Program (IWRP)

According to the U.S. Department of Education rehabilitation regulations, the purposes of an IWRP are as follows:

- Formalize case planning and management by setting forth intermediate rehabilitation objectives and employment goals
- Specify the means and time frames for achieving the intermediate objectives and goals
- Involve the client in the planning and development of the IWRP
- Protect the clients' rights (Wacker 1982, p. 81)

In 1979, the U.S. Congress mandated the inclusion of the following subsections within an IWRP:

- A statement of long-range rehabilitation goals for the individual and intermediate rehabilitation objectives related to the attainment of such goals
- A statement of the specific vocational rehabilitation services to be provided
- The projected date for the initiation and the anticipated duration of each such service
- Objective criteria and an evaluation procedure and schedule for determining whether such objectives and goals are being achieved (ibid.)

Many vocational educators have become highly skilled at adapting teaching methods, materials, and physical arrangements of their shops in order to integrate students with special needs. At the present time it is likely that most vocational instructors have heard the terms "IEP" or "IWRP." Those with extensive mainstreaming experience have probably participated in the IEP or IWRP processes by providing input concerning the content and requirements of their vocational classes.

The special educators and/or rehabilitation counselors are the experts in working with students who have disabilities, whereas vocational educators are the authorities on the content of particular skill-training courses. It follows that these professionals would want to collaborate on the program planning for students with disabilities by suggesting realistic vocational training goals to be included in the IEP or IWRP.

Writing an individualized vocational education plan involves the following:

1. Establishing where the student is (*determining present levels of educational performance*)
2. Identifying how much and what one can reasonably expect him/her to learn by the end of a year (*writing annual goals*)
3. Determining the steps to be taken in achieving annual goals and the means to measure the student's progress (*specifying short-term objectives*)
4. Determining the means for evaluating progress (Duffey 1978, p. 1)

Developing an Individualized Vocational Education Plan (IVEP)

There are four phases in developing an IVEP for all students. Many of the essential features involved in developing an IEP or an IWRP are adaptable to planning for vocational students (see table 1). The four phases of activity are discussed in the sections that follow.

TABLE 1

ESSENTIAL FEATURES OF THE IEP AND IWRP THAT CAN BE APPLIED TO PLANNING FOR VOCATIONAL STUDENTS

IEP	IWP
Statement of the student's present levels of educational performance	
Statement of annual goals for the student	Statement of long-range rehabilitation goals for the individual
Short-term instructional objectives	Intermediate rehabilitation objectives
Projected dates for initiation of services and the anticipated duration of the services	Same
Objective criteria and evaluation procedures for determining whether such objectives and goals are being met	Same

Phase 1: Determining Present Functioning Level

The students' present vocational skill levels and related academic competencies need to be assessed. "This information is necessary to determine if the students' interests and abilities are consistent with what is offered through the given program of vocational education" (Gill and Hawley 1981, p. 10). These "levels of functioning" can be evidenced, formally and informally, in a variety of ways. Student evaluation/assessment data may include the following:

- Students' stated occupational interest
- Results of occupational interest assessments
- Results of occupational aptitude assessments
- Direct measurement of operationally defined prevocational and occupational readiness behaviors
- Prior occupational experiences
- Physical capacity for work
- Mental capacity for work
- Results of vocational education program performance
- Results of a planned exploratory sequence in and among various vocational education programs (Gill and Langone 1982, p. 9)

Phase 2: Writing Annual Goals

The annual goals should be derived from the information gathered during the previous phase. "These goals are characteristically broad in focus, but specific enough to define a general direction and thrust . . ." (Bill and Hawley 1981, p. 10).

When writing an IVEP vocational instructors will want the annual goals to be broad statements of the expected student performance. Lichtenstein and Cormier (1981) give this example: "The student will successfully complete Automotive II with modifications as described in the objectives" (p. 3). Gill and Hawley (1981) assert that "the student should also have a say in what [his or her] goals are within the context of the program goals. This student involvement and commitment will be vital to the overall process" (p. 12).

Phase 3: Writing Short-Term Objectives

The short-term objectives will be the sequential steps leading to the program or student goals. These should reflect each individual's unique interests, strengths, and weaknesses. The objectives should state—

- what specifically the student will be able to do (performance);
- the minimum level of acceptable performance (criteria); and
- what will be provided to the student prior to being expected to complete the objective (condition). (Lichtenstein and Cormier 1981, p. 3)

Phase 4: Evaluating Student Performance

The evaluation criteria should be incorporated into the objectives for each student. "If the student is unable to complete the objective, as indicated, then the plan should be revised" (Lichtenstein and Cormier 1981, p. 9). On the other hand, if a student accomplishes a specific objective, then that objective should be considered completed. A new objective, presumably at a higher level, should be added.

It should be reiterated that an individualized plan does not have to be a lengthy document. In fact, it will usually be quite brief. If it is determined that the student possesses high self-motivation and aptitudes, then the student's individualized plan may consist of only one or two objectives *specific* to the student's personal vocational training and/or employment goals for the future. These objectives will most likely relate to the development of more accelerated technical training and/or on-the-job cooperative training. Conversely, a student with lower self-motivation and/or aptitudes will need more objectives. Objectives for this student will be centered around modifications designed to help the student complete a given portion of a course.

The reader should note that there are standard *guidelines* for IEPs and IWRPs but no standard *format* for these documents. The formats differ among states and local areas; however, the components of the documents are mandated by federal law.

Summary

Although the IWRP and the IEP are mandated, there are many advantages in providing individualized vocational education plans for all students. These plans will assist students in establishing career or vocational goals for themselves. Students are able to take an active part in their programs from the outset. These plans encourage the participants, including the students, to be accountable for their career or vocational development.

APPLICATION OF EMPLOYMENT READINESS TRAINING IN VOCATIONAL EDUCATION

Carol A. Kochhar

The vocational preparation process (or employment readiness process) involves the following four sequential phases:

1. Readiness for vocational training
2. Work adjustment
3. Vocational skill training
4. Job-seeking/keeping skills

What happens with the students in the prevocational phase, before they enter intensive and specific vocational skill training, is as important as the final step toward entry into the labor market.

Readiness for Vocational Training

Foundation skills are essential components of prevocational development and include such skills as self-care and interpersonal skills. These fundamental skills are the primary responsibility of special education personnel at the elementary and intermediate levels.

Paul Wehman (1981) identifies independent living factors that are critical to readiness for vocational training, job placement, and job maintenance. These include the following:

- **Transportation and Mobility**—skills in being able to get to a work site, mobility within the work site, coping with environment barriers
- **Communication**—ability to express needs, ask for direction or explanation, ability to respond appropriately
- **Self-Care and Appearance**—Proper attire for the work environment; the "employable" self-image which requires an appropriate wardrobe and effective hygiene habits
- **Socialization**—ability to cooperate with others in teams; accept correction or criticism; accept authority; appropriate interpersonal skills
- **Functional Academic Skills**—basic reading and arithmetic

- **Affective Factors**—initiative; positive work attitude; positive self-concept; sense of competence in one's own skills; desire to improve skills and develop new skills; basic impulse control

- **Problem-Solving Skills**—search for alternatives to problems; creative solutions (Wehman 1981, pp. 32-33)

Some generic work-related skills that can be strengthened prior to the individual's entry into formal vocational skills training include these:

- Following commands
- Development of memory for sequencing tasks
- Adjustment to a daily routine
- General acceptance of time schedules
- Appropriate behavior during breaks
- Good grooming and appearance
- Physical strength and work tolerance
- Willingness to give assistance and accept assistance
- Task independence
- Cooperative group work
- Response to stress situations
- Appropriate nonverbal language (Wehman 1981, p. 34)

Special educators functionally prepare students for more formalized skills training. The vocational skills-training instructor works with the student and helps him/her to apply various skills to specific vocational activities.

Work Adjustment

The second phase of employment readiness training involves work adjustment training, which differs from work evaluation in that it is actually a treatment process rather than an assessment process. Work adjustment utilizes aspects of work to modify behavior. The basic objectives of work adjustment are to assist individuals who do not possess the attitudes and skills needed to succeed in the competitive market. Work adjustment training is *not* skills training but rather is a "goal to help the individual develop self-confidence, self-control, work tolerance, ability to handle interpersonal relationships, an understanding of the world of work, and a work personality that will enable him [her] to handle the day-to-day demands of a work situation . . ." (Cull and Hardy 1972, p. 65). The development of work tolerances includes development of the ability to—

- sustain a work effort for a continuous period of time;

- maintain production at an acceptable level of quality;
- cope with a certain level of pressure on the job;
- relate and compete with all types of co-workers; and
- accept and perform unsavory aspects of the job.

Areas that fall within the realm of attitude conditioning include the development of—

- essential motivation to work;
- initiative in work tasks;
- desire to devote one's best effort to the job;
- pride in one's task or vocation;
- ability to gain gratification from being productive;
- ability to follow rules and regulations;
- willingness to do aspects of the job one does not like;
- ability to accept correction;
- ability to maintain an excellent attendance record; and
- a sufficiently high level of self-confidence and self-esteem. (ibid., p. 160)

When such attitudes as these are acquired, the individual is more likely to be able to handle daily work pressures and to handle them maturely.

Employers are continually telling employment program agents, "we are in need of individuals with the proper attitude and suitable motivation. I'm willing to train if someone's willing to learn." The problem of adjusting one's emotional self to meet the requirements of work life is known as the affective domain that includes attitudes, feelings, and motives.

> The assumption is that suitable emotional or affective states not only lead to a satisfactory work experience, but also contribute to the worker's total pattern of growth. (Super 1957, p. 6)

A critical need to facilitate the development of the affective aspects of career development exists.

Values are variables in vocational development. Super (1957) states:

> Work satisfactions depend upon the extent to which the individual can find adequate outlets in his job for his abilities, interests, values and personality traits . . . values permeate all aspects of life, they concern life's goals, and in some instances they seem to be closely related to needs and drives. (ibid., p. 6)

A study designed to explore the work values of physically handicapped persons was conducted at Catholic University in Washington, D.C. Results indicated a significant difference in patterns of work motivations between the disabled and nondisabled majority. The choice of occupational role appears to be significantly related to the perceived social role in the world of work.

A relationship does exist between the nature of a particular handicap and the degree to which that handicap is a source of anxiety. Differences exist in the extent to which a specific handicap affects interpersonal relationships, and these problems do affect the valuation of work. Studies and findings such as this can be useful in providing the disabled individual with a clearer understanding of the satisfaction associated with work, so that occupational decisions can be made that correlate with each individual's value system.

Vocational Skills Training

The third phase of employment readiness training—vocational skills training—involves a coalition between vocational skills training instructors and rehabilitation specialists. Although the skills training instructors have been primarily responsible for specific and intensive skills development, the vocational educators will need to provide additional "services" that should not be viewed as peripheral or auxiliary but rather central to the success of the disabled student in the vocational skills class. Vocational skills-training instructors can expect to receive students with fairly well-developed foundations in prevocational and independence skills. Additional inservice training in basic behavioral techniques would enhance the training instructor's effectiveness in working with individuals who are disabled.

Vocational skills-training instructors also need to become familiar with special adaptive devices such as wheelchairs, prostheses, and expressive and receptive communication devices in order to assist students in the vocational classroom. Vocational skills-training instructors will experience greater teaching effectiveness with disabled students if they can also reinforce and encourage the students' efforts to adapt their functional limitations to the work tasks and develop compensatory skills and attitudes. In this way, vocational instructors help students to generalize what they are learning with vocational rehabilitation counselors to the vocational classroom and, eventually, to the job sites. The students' competence, and subsequent confidence in the ability to make necessary adjustments, are enhanced so that they can perform well and experience success.

Job-Seeking/Keeping Skills

The fourth phase of the employment readiness training process includes actual transition to the job, either in the competitive labor market or in sheltered settings. This final phase involves the job placement process, experience with completing job applications, training in effective interviewing behavior, and awareness of the rights and responsibilities of the employee. Rehabilitation professionals are important in facilitating transition to work by steering individuals toward jobs for which their specific vocational skills training has prepared them. Rehabilitation specialists also assist individuals in purposeful search for work opportunities in the community.

Rejection of disabled individuals in the job market and in the community as a whole can be significantly decreased by training in community competence (Schulman 1980). Community competence means a broad behavioral repertoire including vocational skills at a competitive level of competence, independent living skills, and basic consumer survival skills. The disabled workers must perform at least as well as the other workers on the task and process the interpersonal skills required to reach a level of competition with other skilled workers.

Ensuring equal opportunity for disabled students entering the work force basically implies reducing competitive disadvantages or barriers to employment. Disabled individuals must complete their vocational skills-training experience with job skills, work behaviors, and attitudes that closely match industry performance standards or on-the-job training eligibility requirements. This requires that vocational skills-training instructors be familiar with industry performance standards in a broad range of occupations. It means incorporating graduated demands for performance and productivity into the curriculum, with terminal performance criteria that match industry expectations. The goal of maximizing the individual potential of the students who are disabled must be commensurate with the goal of providing equal opportunity and readiness for employment.

APPLICATION OF VOCATIONAL GUIDANCE AND COUNSELING IN VOCATIONAL EDUCATION

William F. Sullivan

Vocational guidance and counseling is a cohesive process through which individuals are assisted in the development and acceptance of an integrated and adequate view of themselves and their role in the world of work (Super 1957). Crites (1969) has posited the concept that vocational guidance and counseling is a facilitative process in which a service is provided to individuals to aid them in choosing and adjusting to an occupation. In its broadest sense, then, vocational counseling emphasizes the promotion of healthy emotional adjustment and general social, educational, and occupational fulfillment (Foster, et al. 1977). While guidance and counseling serve as integral components through which all individuals are able to negotiate successfully through the difficult career decision-making phase of development, they become most critical in the rehabilitation process for disabled individuals.

In the rehabilitation model, the vocational guidance and counseling process assumes a cohesive role in integrating the various components that are essential for the overall vocational development and vocational success of disabled individuals. These components or phases, which are part of the total rehabilitation process, might be categorized as follows:

- **Prevocational phase**

  --Self-discovery
  —Career awareness

- **Preassessment phase**

- **Assessment phase**

- **Exploration phase**

- **Selection phase**

- **Placement phase**

- **Follow-up phase**

Successful vocational counseling models for enhancing the vocational development of students with disabilities emphasize active counselor involvement as well as responsible student input. Wright (1969) terms the relationship between client/student and counselor to be one of co-management; that is, the client/student is part of the planning, decision making, and evaluation of his/her own case.

Too often, poorly developed interpersonal skills, lack of success in academically related activities, and little exposure to positive experiences in vocationally related tasks condition disabled individuals to expect failure and to accept it as the usual chain of events in their lives (Zunker 1981). Consequently, counseling is directed at helping the disabled individuals take responsibility for their lives by developing their vocational skills and by structuring the accomplishments of short-term vocational goals for the future.

The application of several vocational guidance and counseling models has been implemented to serve the individuals who are disabled. In most cases, these models can be easily adapted to serve individuals without disabilities who are in vocational education settings. One such program, the Minnesota Model (SERVE), effectively integrates prevocational training, assessment, exploration, and training into a cohesive service delivery model for disabled individuals. SERVE (Tindall 1980), an acronym for Special Education, Rehabilitation, and Vocational Education, has goals or objectives designed to ensure that disabled students have the opportunity to participate fully in vocational education programs. The model consists of the following components: (1) vocational evaluation; (2) career exploration; (3) supplemental resource instruction; (4) related math and reading instruction; (5) job-seeking/keeping strategies; and (6) individualized vocational learning modules.

Prior to the initiation of any one of the above components, extensive background information about the disabled individual is collected. This information consists of medical, social, psychological, educational, and vocational information. The data collection phase, through interviews and case management practices, forms the basis for initiating guidance and counseling strategies. The information that has been collected is utilized to inform instructors and students alike about possible vocational directions and the assessment needs of the students (Zunker 1981).

The vocational assessment component involves a series of tests consisting of interest inventories, achievement, aptitude, and dexterity tests. Each individual can be evaluated at several levels of competence by completing work samples in one or more training areas. Throughout the testing procedure, behavioral observations are made regarding frustration tolerance, persistence, dexterity, and ability to follow directions. The data collected from the aptitude, interest, and behavioral testing become the core of the vocational counseling with the disabled individual and provide the rationale for the selection of career areas in which the students may explore for a more in-depth, hands-on experience.

The career exploratory component provides the individual with the opportunity to learn firsthand the qualifications, requirements, tools of the trade, and various employment levels of each career field selected. Disabled individuals have a better opportunity to discover their own level of competence and whether or not the particular career fields that are explored provide them with the career satisfaction necessary for ultimate job success. The continuous feedback that is an essential part of the component forms an integral part of the guidance and counseling efforts by assisting in the development of long- and short-term goals for eventual vocational training and appropriate career decision-making strategies.

Throughout the supplemental resource instructional phase, vocational guidance and counseling for the disabled individual consists of advocacy intervention and support in regular vocational training programs and provision of assistance in job development techniques and job-seeking behaviors. Topics such as filling out job applications, simulating job interviews, and establishing job placement procedures are covered in order to assist the disabled individual in becoming as independent as possible.

In addition to the above components, the SERVE model has a data retrieval system designed to locate and identify individuals within the state's boundary who have special needs. This aspect of the guidance and counseling process is especially important since, in identifying individuals who need special services, preparation time can be utilized to plan for accommodating the increased need for existing vocational services.

Project SERVE mandates full utilization of vocational counseling services for the disabled student population it serves. Many of its components are readily adaptable to full utilization by all students who may be involved in the initial states of career decision making. As a guidance and counseling model, it effectively utilizes the major activities necessary for subsequent vocational development.

A totally different concept in vocational guidance and counseling than that exemplified by Project SERVE is the EBCE (experience-based career education) model (McClure, Cook, and Thompson 1977). EBCE programs have involved gifted and talented students and regular students as well as disabled students. Experience-based learning combines classroom learning with career exploratory experiences within the larger community. Seven main learning characteristics form an integral part of the counseling process. They are as follows:

- **Learning how to learn**—This process emphasizes the need for lifelong practice in the basic tools of learning—reading, writing, speaking, analyzing, computing, and solving problems. These skills help the students become self-reliant and confident to pursue independent goals.

- **Learning about life**—This process emphasizes problem solving in the real world of everyday experience, how to get along with other people, use of leisure time, and adaptions to change

- **Learning about careers**—Through a variety of job experiences, disabled individuals formulate questions about themselves in relation to careers and recognize the need for adaptability in processing future changes with themselves and in the working world.

- **Learning about themselves**—Individuals are challenged to try new experiences, tasks they had never attempted, or if attempted, in which they had not been successful. Throughout the tryout stages, guidance is available to help expand the vocational potential and to assist in short-and long-term vocational goal setting.

- **Learning to be responsible**—Individuals are responsible for what they learn in EBCE. Planning, making decisions, negotiating, and evaluating of self are key parts of the program. Participants are held accountable for their actions and are assisted in meeting expectations.

- **Learning about others**—The community becomes the classroom in the EBCE model through the sharing of information between the disabled individual and community resource people. The community resource people serve as role models for some basic daily living skills that are needed.

- **Learning by doing**—Individuals learn the skills necessary to resolve problems in career-related decision making. EBCE outcomes are measured by performance. Achievement as measured by grades is de-emphasized in favor of achievement that reflects problem solving in the working world. (Ibid., p. 6)

Vocational counseling in experience-based career education has as one of its major goals increasing each person's ability to make choices, to act on those choices, and to accept responsibility for the consequences of those choices. To achieve this goal, counselors utilize the accountability system as an important guidance tool. In this system, standards of behavior are clearly defined and reflect community as well as school expectations. Consequences of behavior are natural outgrowths of the standards of behavior. Feedback conferences between the disabled individual and appropriate counseling agents are an established part of the system.

EBCE as a vocational and guidance system prepares individuals who are disabled to make appropriate decisions about which skill-training areas would be the most advantageous to enter upon completion of the EBCE exploratory phase. Because of EBCE membership, participants make more realisitic career choices and have more motivation to succeed.

Project SERVE and EBCE are models that are designed to assist disabled individuals, as well as nondisabled, in developing their vocational potential to the maximum level possible. Like all models that service the disabled, extensive use is made of occupational information systems in order to provide the tools through which vocational counselors and rehabilitation counselors can assist their clients in career decision-making strategies. The Michigan Occupational Information System is one example of such a system. An equally impressive system is the Virginia VIEW (Vital Information for Education and Work), which is a career information delivery system geared to assisting individuals in making career plans and finding rewarding jobs (VIEW 1982). The system makes extensive use of microfiche and microcomputer software as delivery agents. One unique feature of the system, and one that has immediate impact for vocational counselors, is the career search that is designed to help individuals to prepare profiles of interests and career goals.

The importance of vocational counseling in enhancing the employability of individuals with disabilities cannot be minimized. Whatever prevocational model is used, or whatever occupational system is followed, the interaction between client and vocational counselor in the subsequent job preparation stage becomes increasingly important for the eventual vocational success of the disabled client. The counselor's melding of client interests, aptitude, attitudes, and vocational motivation becomes a key strategy in facilitating the job search, job preparation, and placement for the client with disabilities. The role of vocational guidance and counseling in assisting individuals with disabilities in pursuing job preparation and job placement strategies is the focus of the next section of this monograph.

APPLICATION OF JOB PLACEMENT AND FOLLOW-UP IN VOCATIONAL EDUCATION

William F. Sullivan

Prevocational skill development, vocational assessment, career exploratory experiences, job tryouts, and specific vocational training are all key features of a comprehensive vocational model for serving individuals with or without disabilities. The rehabilitation process for disabled individuals, however, while emphasizing all of the above aspects of the model, adds additional attention to relevant strategies for job development, job placement, and job follow-up. The role of vocational counseling, which was described in the preceding section, assumes increased importance because, in this arena of job development and placement, counselors play a most significant role in the overall job success or job failure of disabled individuals. If counselors do not play an active role in these areas, conceivably the disabled clients may finish a very comprehensive and expensive program with no better job prospects than they had before they started it (Baxter 1979).

The job development and placement of disabled individuals requires far more effort and strategies beyond those that are required for nondisabled individuals. To accomplish this task, placement counselors must join forces with significant others in a team approach. Vocational skill instructors, placement specialists, disabled individuals, and rehabilitation counselors all must work together to provide the most effective planning and placement strategy. Through this strategy, individuals with disabilities can be assured of having the best possible opportunities for placement success. Significant elements of the planning and placement strategy involve the following phases: job development, job modification, job analysis, job placement, and job follow-up.

Job Development

Job development goals are to identify potential sources of employment and to encourage employers to give disabled individuals an opportunity to succeed in appropriate jobs (ibid.). Regardless of whether the objective is for on-the-job training, work study programs, or full-time employment, an organized approach to employer contacts is a major first step. The placement counselor should know the local community, who the largest employers are, which ones have already hired individuals with disabilities, and which employers or companies are not currently hiring disabled individuals. Dahl, Appleby, and Lipe (1978) list three methods for initiating employer contacts: one-to-one personal contacts; personal contacts with groups of employers, such as members of the local chamber of commerce or service groups such as Kiwanis or Rotarians; and mail or media contacts. In initiating employer contacts, vocational counselors and rehabilitation counselors need to be aware of employer concerns regarding the hiring of disabled individuals and the need to be able to counter these concerns and apprehensions with straightforward, honest answers about disabled clients. In addition, placement staff members need to be aware of possible work accommodations that may need to be made in order for individuals to be successful in job placements.

Job Modification

The employer's commitment to provide opportunities for individuals with disabilities to succeed mandates that counselors involved in the rehabilitation process engage in active efforts to ensure that opportunities are utilized in the most effective manner possible. Consequently, along with job development activities, a major responsibility for job modification is to ensure that disabled individuals will be able to perform the duties of the particular jobs. Baxter (1979) has indicated that rehabilitation counselors need to provide reassurance to the employers that such modifications need not be expensive and that the productivity of the job will not suffer. Rehabilitation counselors have available the wide range of professional services to assist the employers. They have expertise in restructuring jobs; they are familiar with resources from their agencies, such as funds for the purchase of adaptive and specialized equipment; and they can provide funds or assist in finding sources of funds for on-the-job training subsidies or partial payment of employees' salaries, especially if extensive supervision is required. The rehabilitation counselor also can call on the services of such specialized personnel as industrial engineers, equipment and material developers, and other experts. The role of each member is to ensure that the disabled individual has the maximum opportunity for success.

Foster, et al. (1977) indicate several different approaches to job modification. Perhaps the most common form of modification is that for equipment. An equally important modification, however, occurs when aspects of the job are restructured in such a way that different job tasks are substituted for those that a disabled individual could not perform. A third type of modification involves changing the physical environment either by removing architectural barriers or by manipulating aspects of the specific working conditions. In any event, where modifications are necessary, they are the key to successful job performance.

Job Analysis

The rationale for job modification has its basis in the job analysis. The purpose of the analysis is to break the job into its constituent steps in order to identify possible problem areas that may need to be restructured as well as to ensure that the proper modifications and equipment can be utilized by the disabled individuals. In addition, Dahl, Appleby, and Lipe (1978) indicate that job analysis should afford the employer an opportunity to get actively involved in finding out how and where disabled individuals can fit and what modifications need to be arranged. However, one cautionary note should be stated at this time. Counselors and other placement personnel must guard against stereotyping individuals with specific disabilities into pre-conceived job slots. This leads to arbitrary accommodations that often do not enhance the productivity of the disabled workers. Perhaps, as Vandergoot, Swirsky, and Rice (1982) suggest, the more appropriate procedure would be for the placement counselor to arrange a face-to-face contact between employers and the applicants with disabilities, in order to ascertain the physical requirements of the job and suggest accommodations that might need to be made. Vandergoot, Swirsky, and Rice quote research revealing that, in many cases, individuals with disabilities are the best source of information regarding job accommodations that may be required to maximize performance.

Dahl, Appleby, and Lipe (1978) urge that job analysis be started shortly after employer contacts have been initiated. With this approach, and with a thorough and comprehensive job analysis, counselors can illustrate to potential employers that they are serious about assisting them in resolving problems if they should arise, and not just in "landing a job" for disabled individuals.

Job Placement

The actual placement of disabled individuals on a job is rather easy if the job development, job modification, and job analysis have been done properly. Except for lower functioning individuals such as the mentally retarded and individuals with severe physical disorders, however, the actual placement can be done rapidly with perhaps only initial support needed. For others, job placement may best proceed in a step-by-step fashion with job tasks being added gradually as new ones are learned. Other approaches may involve job tryouts for set periods of time to ensure that the individuals can adequately perform at the desired level.

Job Follow-up

Perhaps one of the most important aspects of job development and placement for individuals with disabilities is job follow-up. Often, however, follow-up is overlooked or, in some cases, neglected altogether. Without adequate follow-up activities by counselors and other vocational support services, numerous disabled individuals who were successfully placed initially would not continue with their employment because of problems encountered on the job. Follow-up does not necessarily need to be tied to a specific schedule, but rather should be geared to the disabled individuals and to the specific needs of the employers.

Follow-up has many purposes. Dahl, Appleby, and Lipe (1978) have indicated that follow-up activities are particularly useful for spotting immediate problems that occur frequently in a new placement. These problems can be quickly extinguished through an ongoing follow-up process. In addition, follow-up serves to develop a favorable reputation for the program, thereby insuring that other disabled individuals might be aided in placement. Follow-up also aids in needed program improvements in training, counseling services, or in placement services. Finally, follow-up allows placement personnel to see how well the individuals are progressing on the job and if additional training or resources are required. An additional by-product of follow-up is that it helps employers be more likely to accept new workers, or to retain an established employee, even if problems are being encountered.

The function of planning and placement for disabled individuals has traditionally been the role of rehabilitation counselors. With the advent of increased opportunities in vocational education for disabled individuals, however, vocational educators and vocational skill instructors, as well, have assumed a planning and placement role. Competency-based vocational instructional formats have enabled vocational instructors to measure specific performance of individuals at many different competency levels. Consequently, they are often in a better position to know what specific students can do. In many cases, the instructors have the job placement resources to ensure proper placement.

As previously mentioned, job development and placement of disabled individuals works best through a team approach. The practitioners in the three disciplines of vocational education, special education, and rehabilitation have unique experiences and expertise, which can effectively be used to assist disabled individuals. Special education teachers can help vocational education teachers in academic support areas and can aid in placement. Vocational education teachers can help rehabilitation personnel in developing placement sources; and rehabilitation personnel can help both special education and vocational teachers in planning the transition from school to work or in developing postsecondary training programs and adult training programs. These services can then be used for retraining, job development, job advancement, and development of emerging technologies to create more employment opportunities for disabled individuals.

Model Programs

Numerous successful programs throughout the nation serve individuals with disabilities. These programs emphasize the cohesive vocational planning and placement strategies that have been outlined in the preceding section. Of the many, three comprehensive programs are highlighted in this section as examples. They are *Project Transition*, *Job Path*, and *Projects with Industry*.

Project Transition (Virginia Department 1979) is a program serving the Northern Virginia area and has been funded through federal grants, the Virginia Department of Rehabilitative Services, and community services boards. Its goal is to assist mentally retarded adults in becoming competitively employed in secure jobs that have been carefully matched with their vocational abilities and career interests. In order to accomplish this goal, Project Transition emphasizes a one-to-one relationship between the disabled individual and the job placement specialist. This unique relationship ensures that the disabled individual will demonstrate successful adjustment to the job as well as satisfactory performance. The approach used by Project Transition includes the following features:

- Intensive one-to-one pre-job orientation lasting approximately two weeks, using actual training sites in the community
- Full-time on-the-job training and supervision by the placement team from two weeks to two months
- Transportation, as required, to and from the work setting
- Maintenance of close family ties
- Occupational skill training and work adjustment
- Comprehensive job analysis for each potential job site
- Maintenance of close employer contact
- Involvement of various community resources to ensure a comprehensive, cohesive, and consistent approach to employment

Project Transition emphasizes social and economic independence through entry into the competitive working world.

Another example of a very successful vocational planning and placement model is Job Path (1980), a supported work program designed to enable hard to employ individuals to obtain and retain jobs. Five basic components are an integral part of the supported work program:

- Real job assignments as part of the training period for the purpose of transmitting job skills essential in the competitive job market
- Successful experiences so that the disabled individual is not overwhelmed by initial job responsibilities
- Firm but supportive supervision

- Regular evaluation and feedback in order to increase self-confidence and the development of individual responsibility

- Opportunities for peer support in order to gain mutual strength and understanding

The first stage of training in Job Path is designed to teach the participants good working habits and develop basic skills. Each participant is placed in a public sector employment site for up to six months. During this period individuals are paid the minimum wage. The second stage occurs when the trainees are placed in a private sector site. Trainees are matched to either the private or public training site on the basis of skills, personality, and potential of the trainee to meet the needs of the employer. The third stage of the transitional program occurs when the trainees move from Job Path's payroll to the payroll of the organization that hires them on a competitive basis. The hiring of Job Path trainees occurs in two ways: first, what began as a training opportunity turns into a competitive job slot; and secondly, trainees are hired by firms on a direct-hire basis.

Job counseling is an integral part of the Job Path model. Job counselors provide the support system for the trainees. The counseling component of Job Path has four methods of support for both the supervisor and the disabled individual:

- Job counselors visit the training sites on a regular basis in order to observe the trainee at work and to identify strengths and potential problem areas. Job counselors meet briefly with the individual to provide needed support.

- Job counselors meet regularly with supervisors to discuss the disabled individual's progress and possible areas of concern.

- Job counselors provide individual counseling for each trainee.

- Group counseling is provided for each trainee.

The counseling component is a continuous one and continues throughout the first months of placement, gradually being reduced over the course of the year.

Job Path's transitional employment program emphasizes work adjustment, job development, job counseling, and follow-up. It has been extremely successful in making successful employees out of a large number of disabled individuals who had been thought to be unemployable.

Projects with Industry (PWI) is a job development, planning, and placement program, cooperatively administered by both private industry and rehabilitation agencies. Pati, Adkins, and Morrison (1981) have indicated that all phases of job development and planning have their focus in the model, but that primary focus tends to be on work adjustment and actual job placement. At the present time, well over one hundred Project with Industry programs are found throughout the nation.

As expressed by Pati, Adkins, and Morrison (1981), PWI is founded upon four major assumptions:

- Actual work settings provide the most reliable arena for evaluating the skills and aptitudes of potential employees. Work site evaluations prepare disabled individuals for competitive employment.

- The employer, as well as the disabled worker, needs help in training and placement.

- Employers are in an excellent position to identify job disabled individuals. They may be involved in defining the qualifications for jobs and designing training programs.

- It is in industry's best interest to institute employment practices for disabled individuals. Partnership with rehabilitation service providers is the best method for instituting and promoting such practices for the betterment of the employer, the disabled individual, and co-workers.

In all of the PWIs established, the usual situation is a close working relationship between industry and rehabilitation personnel that achieves the common goal of eventual, successful adjustment and placement. Consequently, Projects with Industry performs three essential functions:

- The program creates an effective and continuous partnership between business and service agencies in the rehabilitation process.

- As a result of Projects with Industry, rehabilitation services are more responsive to the needs of employers as well as the needs of disabled individuals.

- The potential of disabled individuals is more fully utilized.

The ongoing partnership between service providers and private and public employment personnel is the key to the success of three programs that have been described. These successful partnerships have a strong emphasis on meeting the needs of the employers, while not ignoring the human service needs of the disabled individuals. Pressman (1981) states that programs with this emphasis have an advantage because they provide realistic and demanding work experiences, thus increasing the opportunity for good work placements for the disabled individuals who are served by the programs. These programs combine the opportunity for experience in the employment sector as well as exposure to technological expertise of vocational educators. As a result, the programs play a key role in the partnership between educational service providers and business and industry.

THE EXPANSION OF SERVICES FOR DISABLED PERSONS WITHIN VOCATIONAL EDUCATION

Pamela J. Leconte

In this section the expanding role of vocational education is addressed in terms of reasons for expansion, status of current developments, and implications that expansion has for vocational educators. The passage of several decades has not altered the goals of vocational education and rehabilitation, but the means of achieving them have changed. In order to avoid duplication of services, and to provide a continuum of vocational education preparation for individuals with disabilities, the two disciplines are forming linkages with each other while enlisting the cooperative support of special education.

As the role of vocational education expands to serve an increasing variety of populations, vocational educators are finding that the techniques, methodologies, and services of rehabilitation with modifications and adaptations can be applied effectively to the vocational training of these varied groups. These populations include non-English speaking, older persons, limited English proficient, disadvantaged and disabled youth and adults, underemployed and displaced workers, as well as the unemployed and employed workers requiring upgraded training and retraining.

The evolution of both vocational education and rehabilitation has refined services and made them more sophisticated. This process continues to accelerate as the educational and rehabilitation systems attempt to adapt to changing demands in productivity and technology. Each discipline bases the preparation for productive, successful employment on individual needs in conjunction with manpower demands of the job market (Lynch, Kiernan, and Stark 1982).

Communication and cooperation among vocational educators and special education and rehabilitation personnel are necessary to serve individuals effectively who are disabled. The task of educating disabled students will be most effective if educators from each discipline help their counterparts understand the nature, demands, and requirements of vocational education as well as the nature, implications, needs, and capabilities of individuals with handicapping conditions. Tesolowski, Rosenberg, and Hammond (1980) contend that a "blending of disciplines will provide students . . . with a more comprehensive contiguous movement along the continuum of education and training services" (p. 12). They further predict that ameliorated services and "unnecessary duplication" will be prevented through this integration.

Service to Expanding Populations

Changing societal attitudes have contributed to a more service-oriented movement focusing on the "humanitarian aspects of growth and social development" in all educational and human services programs (Lynch, Kiernan, and Stark 1982, p. 282). These attitudes have brought about a change, which broadened the service bases in rehabilitation and vocational education.

In the 1950s, legislation directed rehabilitation to serve a wider base of disabled adults and school-aged youth. This service population included many individuals who possessed no previous work experience, thus requiring entry-level skill training and accompanying job readiness skills. Likewise, vocational education has been mandated to expand its population base to provide training and education for all students who desire it, including those with disabilities. Each of these disciplines has had to adapt to populations that require different and specialized types of preparation.

Interdisciplinary Cooperation

The cooperative expertise of vocational and special education creates an employment-directed effort for serving students with disabilities before they leave school. The role of special education in the vocational preparation and training of these individuals has stemmed from programmatic needs, professional consciousness, and parental demands. Special educators can provide career development, prevocational preparation, and academic support with vocational programming. Liaison, communication, and cooperation among special education, vocational education, and rehabilitation also have provided better job readiness and vocational skill training to disabled individuals. Ideally, these cooperative linkages can provide a continuum of training and preparation. Cooperative service delivery can provide prevocational preparation, skill and employability training, and job placement without breaks in continuity or lapses in development after graduation. The passage of P.L. 94-142, P.L. 94-482, and Section 504 of P.L. 93-112 reinforced the natural linkages by mandating cooperation among the three disciplines.

The inclusion at the local level of the vocational evaluation process in education represented a primary catalyst for cooperation between vocational education, special education, and rehabilitation. Vocational evaluation allowed for more appropriate placements, provided the rationale for placement decisions, and identified the supplemental services that students required in order to become employable. As the demand for vocational evaluation increased due to the growing number of students seeking vocational education, the need for additional support services and vocationally related instruction became evident.

New Roles

As additional needs are identified, new roles and responsibilities are being delineated within vocational education. The prototypes for some of these roles are already operating within rehabilitation. The need to provide support and ancillary services has created a new cadre of professional educators (e.g., vocational evaluators, support service/vocationally related instructors, liaison counselors, adaptive-device specialists, work adjustment coordinators, and others).

The emergence of this group of professionals represents another linking force between disciplines. Although the professionals comprising these groups bring varied experiences and training backgrounds, the majority have come from special education, rehabilitation, guidance-oriented roles, and other human service professions. Although they perform similar functions for disabled students in vocational education, they are often tied to different funding sources. The National Association of Vocational Education Special Needs Personnel (NAVESNP) was chartered in 1974, first as a section of the New and Related Services Division of the American Vocational Association (AVA) and, more recently, as the primary organization within the Special Needs Division of AVA. Special educators developed a similar professional association, the Division of Career Development (DCD), as a division of the Council for Exceptional Children (CEC) in 1976. These organiza-

tions maintain common goals and similar objectives and, indeed, involve many of the same professionals. In addition to serving professionals in new roles, NAVESNP has involved professionals from the various content areas in vocational education who work with special needs students.

Cooperative Efforts

On the local and national levels, the leadership of NAVESNP, DCD, and the Vocational Evaluation and Work Adjustment Association (VEWAA) has cooperated to address mutual concerns, to provide improved services, and to identify common goals to form more integrative services. Cooperation at the national, state, and local association levels reinforces interagency linkages among the three agencies and assists in directing a mutual, interorganizational growth process within the profession. This example on the association level can complement the efforts and direction of the parent associations, AVA, CEC, and the National Rehabilitation Association (NRA). All three suborganizations "must strive to cooperatively unite their efforts in order to provide significant and challenging leadership at all levels" (Tesolowski, Rosenberg, and Hammond 1980, p. 14).

Cooperative Agreements

Motivated both by identified needs and legislative mandates, federal leadership has developed policy for cooperation among agencies. The U.S. Office of Education's "Position Statement of Appropriate Comprehensive Vocational Education for all Handicapped Persons" of 10 July 1978 set forth the preliminary requirements of public laws. This memorandum called for a "joint administrative plan" to integrate the activities of the Bureaus of the Handicapped and Occupational and Adult Education (Tindall 1981, p. 51).

Another landmark memorandum was issued on 21 November 1978 by the U.S. Office of Education. This document established the structure and timelines for the "Development of Formal Agreements between Special Education, Vocational Rehabilitation, and Vocational Education Programs to Maximize Services to Handicapped Individuals" (ibid., p. 61).

Examples of other federal initiatives include local and national cooperative agreements with the Comprehensive Education and Training Act programs and other third party agencies. Another instance of federal commitment was illustrated by the consolidation of Rehabilitation Services and the Bureau of Education for the Handicapped into the Office of Special Education and Rehabilitative Services (OSERS) after the Department of Education was formed in 1979 (Bar-Droma 1982).

Numerous state and local educational agencies have established cooperative agreements among the three agencies. Ashby and Bensberg (1981) cite examples of such contractual efforts from ten states and give exemplary components from agreements in eighteen states.

One example of an exemplary interagency linkage was demonstrated in Washington County, Maryland. In this instance, vocational education initiated and persistently encouraged contractual cooperative agreements. Cooperation among CETA, rehabilitation, vocational education, and special education was documented and formalized. This collaboration enabled disabled adults, out-of-school youth, and students enrolled in school to be vocationally evaluated and to receive prevocational programming. School instructors were trained to serve these populations both during and after school. All four agencies contributed to the purchase of equipment and provided salaries for the teachers for extended day services.

Encouraged by the success of this program, the vocational educators in Washington County carried the linkage a step further by incorporating cooperative agreements into individual school programs. At the school level, the agreements were often devised by three primary service providers representing guidance, vocational education or industrial arts, and special education. The school administrators approved and co-signed the agreements. Since this process was instituted in 1981 and 1982, the teachers and administrators feel that their disabled students are receiving quality vocational education and have more opportunity to be successful in their efforts (Ingersoll 1982).

Program Improvements

Competency-based vocational education represents another current trend that reflects the expanding role of vocational educators. Competency-based curricula is tailor-made for integration into individualized education and individual written rehabilitation plans.

Competency-based education also reinforces the open entry/open exit philosophy in that students can participate in skill development until they master competencies that are commensurate with their abilities and are sufficient for employment. Close working relationships between secondary and postsecondary schools and industry will help solidify this training continuum.

The rapidity of technological advances has the potential to improve the rate and level of success for disabled students participating in training. The use of computers, robotics, lasers, voice synthesizers, and the myriad of telecommunication advances such as voice, breath, or pointer-directed computers that provide verbal-visual feedback, can reduce learning time, and eliminate communication barriers, to name a few advantages (Lynch, Kiernan, and Stark 1982). These improvements will allow individuals to acquire and to maintain more advanced vocational skills. Already, these systems have enabled people with disabilities to receive and to share information (ibid.).

Implications for Vocational Educators

Current needs and mandates have resulted in vocational educators changing their roles and responsibilities regarding the teaching of disabled students. As Tindall and Gugerty (1979) state:

> . . . improvement of vocational education for handicapped people is primarily the task of the vocational teachers who prepare daily instruction. However, vocational administrators, coordinators, academic and special educators, universities, state education agencies, employers, and others also have a part in the process. No one group can provide all of the services needed. (p. 198)

It is also essential that professionals involved in support functions work side by side with the vocational instructors and administrators. Much of the burden of communicating and integrating with other programs can be assumed or shared by support staff. Often, the vocational educator can serve in a consultant role with other educators.

The responsibilities of vocational educators are changing almost as rapidly as the technological advances of which they must keep abreast within their occupational and technical trade areas. These professionals provide programs that can help people prepare for a career, a vocation that can be pursued throughout a working lifetime, making whatever adaptations and changes the

unforeseeable future in the world of work may require. When a complete change of career is desired or becomes necessary, vocational education must be prepared to help make this possible (Leighbody 1981).

FUTURE TRENDS AND IMPLICATIONS FOR VOCATIONAL EDUCATION AND REHABILITATION

Pamela J. Leconte and Pamela Finnerty-Fried

Trends in Vocational Education

In the 1981 Yearbook of the American Vocational Association entitled *The Future of Vocational Education*, Feldman indicates that "looking ahead is a matter of necessity." While addressing futuristic planning, Hopkins (1982) also cautions that if vocational educators do not develop "vocational education as the single delivery system for vocational and technical training . . . then industries will go into the training business themselves" exclusively or will seek sources other than public vocational education (p. 32). Vocational education must adopt and form strong partnerships and cooperative relationships with other fields of education and other agencies.

The following topic areas are viewed as having an impact on the planning for future vocational education and training needs. Each topic includes implications for vocational education and their relationships to rehabilitation. Trends in rehabilitation also are described in this chapter.

Robotics

Projections indicate that robots will eliminate numerous semiskilled or low-skilled jobs but, at the same time, will require large numbers of additional technicians. Vocational education can work with robotics manufacturers and users to develop mutual usage and time-sharing of equipment for training purposes. The high cost of retooling, purchasing equipment, and training personnel prohibits the establishment of vocational-technical education training in most parts of the country. The robotics industry could expand job possibilities for some disabled individuals who could program, monitor, or technically control robots in industrial settings rather than perform many of the manual tasks that have been assumed by these sophisticated machines.

Electronic Cottage Industries

Advances in computer technology and telecommunication linkages have enabled many people to use home-based computers. This development holds particular benefits for disabled workers who can remain in an adaptive, home environment while being full-time employees or consultants (Swanson 1981). Vocational education can set up school- or home-based training situations for disabled or nondisabled students, homemakers, older persons, or unemployed adults. Rehabilitation clients with severe disabilities can gain employment through the use of this technology.

Managerial Changes

Changes in the workplace necessitate adaptations in training for employment. American industry currently is incorporating new managerial approaches into the workplace, and employees are being involved on a continuing basis in the management of business and industry. Consequently, vocational education students within all content areas may need some managerial and additional communication skills.

Disabled individuals can be expected to become partners with employers both in the modification of jobs and in the implementation of other managerial decisions that have an impact on their work. Rehabilitation counselors and educators can assist in establishing these partnerships, providing technical assistance, and serving needed intermediary functions (McCarthy 1982).

Emerging Occupations

According to U.S. Department of Labor projections emerging occupations will require new options for and forms of vocational training. The National Center for Research in Vocational Education defines the term "emerging occupations" as those occupations that "no one used to work at, a few people work at now, and lots of people will work at soon" ("Emerging Occupations: Not Every Acorn" 1982, p. 12). Many of these occupations are polarized around human services, energy, communication, and traditional service industries such as food and leisure.

It is predicted that vocational education will be integrating computer technology/literacy and advanced communication science into all vocational content areas. The concurrent infusion of technology into general and academic coursework could enhance mastery of these requisite skills. This trend will have an impact on the training and placement options for persons with disabilities and, therefore, upon the rehabilitation process.

Changes within Education

Twelve-month school years, increased use of facilities, short-term training programs, and other alterations in traditional educational structure and practice may provide increased opportunities to combine training efforts with industry and other agencies. An emphasis on lifelong career development is beginning to characterize rehabilitation and vocational education (Brubaker 1981; Fair 1980; Vandergoot and Worrall 1982). The social and economic forces that shape this trend affect both disciplines, and in the area of training and upgrading skills, vocational education and rehabilitation are interrelated.

Competency-based Programming

Short-term vocational training or on-the-job training is in increasing demand. Cooperative agreements and programs between vocational educators, vocational rehabilitators, and specific industry officials can ease the transition of disabled individuals to productive community roles.

As vocational opportunities for disabled persons are extended and efforts toward normalization and mainstreamining are emphasized (i.e., placement in least restrictive, most appropriate training environments), more disabled individuals will seek postsecondary education and training (Fair 1980). A continuum of competency-based training programming, therefore, will be necessary.

An open-entry/open-exit approach will facilitate the progression of these individuals through training programs into productive employment.

Projects with Industry

The current growth of training agreements between out-of-school youth and adult programs and the private sector has assisted in serving all individuals in need of training or retraining. Transitional projects have involved partnerships between CETA, state rehabilitative services agencies, and other community agencies to provide disabled adults with opportunities to gain competitive employment. Successful school-to-work linkages are evidenced in programs such as those developed by the National Restaurant Association, International Associations of Machinists and Aerospace Workers, and the National Demonstration Program for Disabled Workers. Another program, Youthwork, Inc., was initiated by the Department of Labor to help implement the Youth Employment and Demonstration Projects Act of 1977. This particular effort acts as a coordinating corporation to administer the private foundations as well as school and governmental agencies who cooperate to make the programs possible. Cooperative projects with industry can be integrated into vocational education and rehabilitation programs by sharing cost, expertise, equipment, and facilities for training efforts.

Personnel Exchanges

In order to assist vocational education personnel in coping with technological advances and new management practices, the exchange of vocational education instructors and administrators with industrial trainers and employees can be used. Increased awareness and understanding would result in a smoother transition into the employment setting, which is especially relevant for disabled individuals.

This practice has been evidenced in the vocational education of persons with disabilities. Bensburg and Ashby (1981) report that successful cooperative programs involve the incorporation of rehabilitation and special education professionals into vocational education settings where their expertise is used in program implementation.

Central Data Collection

The concurrent advances in computer technology and multi-agency cooperation should continue to have positive effects on centralizing resources, reducing duplication, and expediting service delivery. More specifically, the use of central information storage for job banks, student records, funding sources, training programs, and other information can be utilized by all agencies involved in the business of vocational education and employment placement.

Data collection concerning program accountability is now routine in all levels of the delivery system. Although much of this information would be helpful to cooperating agencies, data are often incompatible with that which is collected from cooperating agencies (e.g., rehabiliation, manpower, special education, and vocational education). Efforts will begin to focus on developing accountability and information-gathering systems that are compatible and complementary.

Disabled individuals can benefit from improved collection, referral, and dissemination practices in that less duplication will occur. In addition, statistical follow-up would indicate the cost-

benefit of training and hiring persons who are disabled. For example, preliminary research by Schneider and Associates (1982) indicates that benefits of a community-based Transitional Employment Training project far outweigh the costs of employing disabled individuals in institutional or traditional separate training programs, such as sheltered workshops.

Trends in Rehabilitation

Trends in vocational education in many instances are linked to parallel trends in rehabilitation. As a conclusion to the monograph, trends in vocational rehabiliation will be highlighted. As indicated in the previous section, those attitudinal, philosophical, legislative, administrative, and technological forces that have an impact on vocational education also have an impact upon rehabilitation. Trends within the rehabilitation program can be surmised from an assessment of current patterns of service delivery, priorities within the program, and developments in practices.

Patterns in Service Delivery

Jenkins (1981) points out the "money, facilities, and trained personnel remain, now as in 1920, obvious impediments to more effective service delivery" (p. 32). He also notes that the definition of rehabilitation has broadened with each new piece of enabling legislation so that it now includes "independent living, self-development, personal growth and social rehabilitation for those people without potential employability" (ibid. p. 32). Thus, the spectrum of services and client groups has been expanding. Influence on the legislation and administration of rehabilitation programs can be expected to be felt in view of "increasing advocacy for special groups, increased public support from new sectors of society, and increased activity by special interest groups" (ibid.).

The human rights movement and increasing involvement and sophistication of consumer groups clearly will continue to have an impact on rehabilitation. In addition, advances in the technology within rehabilitation will have an impact on the quality and scope of services provided.

Priorities within the Program

Vandergoot (1982a) asserts that the role of rehabilitation is one of intermediary in the exchange process that results in people getting jobs. Traditionally the job development and placement process received little attention in view of competing demands on the counselor's time (Fraser and Clowers 1978; Smits and Emener 1980). Currently greater emphasis is being placed on placement activities, and many rehabilitation professionals are focusing on the development of industry-labor advisory councils (Vandergoot 1982a), research on corporate contributions to the hiring and career development of individuals with disabilities (Hedley, Smart, and Young 1982), development of strategies to gather and use labor market information more effectively (Vandergoot, Swirsky, and Rice 1982), and the implementation of a variety of job development and placement technologies and procedures. This increased level of knowledge, skill, technology, and emphasis reflects changes in the role of rehabilitation in the placement area as well as in other areas of rehabilitation.

Developments in Practices

The first part of this section on trends indicated that vocational education is engaging in cooperative efforts with various sectors. Partnerships characterize the work of the rehabilitation

professional as well, and it may be assumed that those linkages will be increased in number and scope.

Rehabilitation is emphasizing partnerships with business and industry, with schools, and with community agencies. Emphasis is on the career development of persons with disabilities. Brolin and D'Alonzo (1979) point out that a large number of students with disabilities experience a discontinuity in career development and fail to acquire adequate social and academic skills. Generally, a gap exists in the provision of those skills necessary for the students to maximize vocational and social abilities (Jenkins and Odle 1980). This problem has been attributed to a failure to communicate between special educators and rehabilitation personnel (Brolin 1973) and to the lack of adequate training of teachers to become competent in providing essential job-related skills, knowledge, and attitudes (Jenkins and Odle 1980). As reflected in the work of Meers (1980) and in this monograph, the gaps in training and knowledge are being closed and communication between disciplines and programs is more effective. The emphasis on continuity and on a lifespan approach to education and rehabilitation can be expected to continue (Brubaker 1981).

Summary

The present normalization philosophy and pressures exerted to correct Bowe's (1978) observation that "America handicaps disabled people" or that the barriers to participation are imposed by society have contributed to the increased cooperation among educators and rehabilitation professionals. The mandate to ensure the realization of certain rights is common to the cooperating programs. Each relies on the other, and services are complementary.

Relationships with business and industry are sought by vocational educators, by special educators, and by rehabilitation personnel. Bensburg and Ashby (1981) point out that program philosophy of the cooperative rehabilitation/special education/vocational education programs they reviewed "holds that employment is the ultimate measure of success" (p. 20). Thus, all programs hold this common goal and share strategies for reaching it. Each program emphasizes placement, and within rehabilitation, approaches to placement include cultivating relations with industry (Vandergoot 1982a), with unions (Mallik and Moretti 1982; Vandergoot 1982a), and with community employers (McCarthy 1982). Similar processes occur within vocational education.

This trend toward increased partnership is expected to continue. As Mallik and Moretti (1982) point out, employment opportunities for individuals with disabilities traditionally have been greatest in the public sector. Service and industries such as finance, insurance, wholesale, and retail trade can be expected to grow through the mid-eighties, and prospects for placement within these fields may well be promising. Innovative approaches to placement and changes in the direction of the rehabilitation professional's efforts to work closely with employers and with the union representatives of these industries are expected (ibid.).

As Jenkins and Odle (1980) point out, the legislative mandates, movements toward career education and competency-based teaching, and the growing acceptance of the philosophy of normalization have combined to promote a climate of acceptance and an environment conducive to the more effective preparation of disabled persons to reach their employment potential. These forces have had national impact on rehabilitation programs, and, as Burton (1982) asserts: "Federal program priorities are, as always, complex and interrelated, but they are now also apparently changing quite rapidly" (p. 52). Shifting social and political pressures have an impact on programs, and various trends have been described. Change can be expected to accelerate in the years ahead, and with strong bases of cooperation, these programs with common goals will be able to support and complement one another and augment the services and training opportunities available to persons with disabilities.

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